Forgiveness among Children

Determinants and Consequences

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Content

Chapter 1 Introduction 7

Chapter 2 Forgiveness and Psychological Well-being 19

Chapter 3 Forgiveness and Executive Control 35

Chapter 4 Forgiveness and The Peer Group 59

Chapter 5 Forgiveness and The Parents 77

Chapter 6 Forgiveness and Society's Focus on Being Special 95

Chapter 7 General Discussion 109

References 123

Samenvatting 141

Dankwoord 147

Curriculum Vitae 153

Chapter 1

Introduction

If you ask a child in late childhood to list the things that are most important in life, it is very likely that he or she will rank 'friendship' among the things that matter most (Klinger, 1977). Indeed, the friendship bonds that children form with their peers are vital to their development and success in a social world. Friendships provide children with more than just fun playmates or others to hang out with. Through interacting with friends, children learn important social skills – for example, how to communicate, cooperate, solve problems, or make decisions. If a child has at least one friend, and is able to maintain that friendship, he or she is less likely to be a victim of bullying (Boulton, Trueman, Chau, Whitehand, & Amatya, 1999). Perhaps even more strikingly, good friendships predict happiness, above and beyond the influence of personality (Demir & Weitekamp, 2007). Such findings illustrate how friendship appears to be an essential ingredient of a child's happy and healthy life.

However, friendships are not only a source of happiness and comfort, sometimes friendships actually may be a source of pain and misery. Frank Fincham (2000) illustrated this with a tale of two porcupines: on a cold winter night they huddle together to keep each other warm. However, the closer they get, the more likely it is that the painful spines from the other porcupine may stab and hurt. In a similar way, children need other children to live happy and healthy lives, but it is almost inevitable that sooner or later this same child may get hurt - perhaps especially by a friend, as friends spend a lot of time together and conflicts therefore arise more easily (Hartup, French, Laursen, Johnston, & Ogawa, 1993; cf. Fincham, 2000). Children may laugh at each other, gossip behind each other's backs, divulge secrets of others that should not be divulged, exclude one another, or sometimes even bully each other. This may be in sharp contrast with the notion that childhood friendships are essential ingredients of a happy and healthy life, and, as such, illustrates the two fundamental assumptions upon which this dissertation is based: children have a strong need of being befriended with others, and at the same time, they are bound to hurt each other. One of the major challenges in children's interpersonal lives therefore is how to maintain friendships in the face of being harmed.

The core argument of this dissertation is that the ability to forgive may be a way to meet this challenge. Although the topic of forgiveness received abundant theoretical and empirical attention from social and clinical psychologists, forgiveness is a relatively understudied concept in developmental psychology. This is unfortunate, as through forgiveness children are able to restore and reestablish those relationships that are so crucial for their social and emotional development (e.g., Berndt, 2002; Berndt & Ladd, 1989; Sullivan, 1953). One may even argue that friendships in childhood are almost impossible to exist for a long time without children's ability to forgive the inevitable hurtful moments that take place within these relationships. The present dissertation seeks to provide greater insight into forgiveness processes among children. Given that only little is known about when and how children forgive their peers, many basic questions remain to be answered. For example, does a

forgiving response benefit children's psychological well-being, even though the offense was so painful? And if so, when and why may there be an association between forgiveness and psychological well-being? When exactly are children more or less willing to forgive? And if children are indeed willing to forgive, will they always succeed in showing actual forgiveness? Furthermore, does the social standing of children in the peer group affect their forgiving tendencies? And finally, from a more distal perspective, do parents or even societal factors shape children's forgiveness tendencies? Before addressing the possible determinants and consequences of children's forgiveness in detail, I will first briefly discuss how forgiveness is defined in this dissertation.

Defining Forgiveness

In light of the young literature on forgiveness in childhood, it is important to clarify how forgiveness is conceptualized in this dissertation. Numerous definitions have been put forward in the extant literature on forgiveness in adult relationships, that differ in the degree to which forgiveness is characterized as an *intra*personal or as an *inter*personal phenomenon (for an overview, see McCullough, Pargament, & Thoresen, 2000). Some scholars have argued that forgiveness can best understood as a prosocial change that takes place within the person who has been offended (McCullough et al., 2000). Others conceptualize forgiveness in terms of behavioral changes toward the offender (e.g., Finkel, Rusbult, Kumashiro, & Hannon, 2002). Most relevant to the present dissertation, McCullough and colleagues (2000) defined forgiveness as an intra-individual prosocial change toward a transgressor, situated in an interpersonal context. I take a similar perspective, such that when a child forgives an offender the child forgives a specific past interaction in which he or she was hurt by an offending peer (see also Karremans & Van Lange, 2008).

Another important issue in defining the concept of forgiveness refers to the question whether forgiveness requires a benevolent or positive response to the offender, or whether the absence of negative responses is sufficient. In line with McCullough's forgiveness account (2001), I argue that forgiveness requires a person to regulate negative feelings, thoughts, and behaviors caused by another person's hurtful behavior into more positive feelings, thoughts, and behaviors toward the offender (McCullough et al., 2000). In this sense, forgiveness is a prosocial change of motivation, where negative responses are transformed into positive and prosocial responses (see McCullough, 2001; McCullough, Worthington, & Rachal, 1997; McCullough et al., 1998). Notably, this definition of forgiveness that involves positive features rather than merely the absence of negative ones tends to be in line with how laypeople view forgiveness (Kearns & Fincham, 2004; McCullough et al., 2000).

Why Study Forgiveness in Childhood?

To address the question why the concept of forgiveness among children should be studied, it is informative to consider what children's general response is after a peer provocation. Often, in the wake of an offense, for example when a child is insulted by a friend, excluded, or attacked by another peer, his or her initial and impulsive response is to do harm in return (e.g., Troop-Gordon & Asher, 2005). This may not only 'feel good' – seeing a transgressor suffer activates reward areas in the brain (e.g., Singer et al., 2006) – the tendency to retaliate or seek revenge after being insulted or victimized may also be functional; in doing so the child communicates his or her boundaries, by which future exploitation risks decrease (Burnette, McCullough, Van Tongeren, & Davis, 2012; McCullough, 2008). At the same time, there is a serious problem when a child consistently acts on his or her retaliatory impulses. These behaviors may set into motion a vicious cycle of negative interactions patterns within the friendship, such as ongoing feelings of anger and revenge (Baumeister, Exline, & Sommer, 1998; Stillwell, Baumeister, & Del Priore, 2008). In addition, children using hostile and retaliatory conflict strategies in response to offenses by peers have poor-quality friendships, and are less accepted by their peers (Newcomb, Bukowski, & Pattee, 1993; Rose & Asher, 1999; Troop-Gordon & Asher, 2005). Thus, although it may be considered a deeply ingrained response, retaliatory tendencies may in the long run undermine the general satisfaction and stability of friendships.

An alternative response for a child when offended by a peer is to act with forgiveness. What are the potential benefits of a child responding with forgiveness? Looking at the extant literature on forgiveness among adults, there are lots of promising benefits. First, and most importantly, the ability to forgive is an essential aspect of well-functioning and lasting interpersonal relationships (e.g., Fincham, 2000; Karremans & Van Lange, 2008). Responding in a forgiving manner generally relates positively to relationship satisfaction and stability. Furthermore, forgiveness has been associated with increased psychological well-being (Bono, McCullugh, & Root, 2008; Karremans, Van Lange, Ouwerkerk, & Kluwer, 2003), and even increased physical health – both for the forgiver (Witvliet, Ludwig, & Vander Laan, 2001) as well as the person that is forgiven (Hannon, Finkel, Kumashiro, & Rusbult, 2012). In support of this, interventions to promote forgiveness have shown increases in self-esteem, hope, and positive feelings toward the offender and decreases in depression, anxiety, anger, grief, and revenge against the offender (Al-Mabuk, Enright, & Cardis, 1995; Coyle & Enright, 1997; Freedman & Enright, 1996; Hebl & Enright, 1993; McCullough & Worthington, 1995). Together, these findings demonstrate that the capacity to forgive can have a host of beneficial outcomes. However, despite these potential benefits in children's lives, little is known about when and how children forgive their peers.

It is important to note that in the present dissertation I particularly focus on forgiveness processes in late childhood, that is, children aged 9 to 12 years old (although in Chapters 3 and 6 studies are presented that involved both children and undergraduate students). This target age group is selected for several reasons. First, although children may already have learned that it is morally and socially important to forgive, only around this age they seem to conceptually understand the concept of forgiveness (Denham, Neal, Wilson, Pickering, & Boyatzis, 2005). That is, and in line with the literature of children's social-cognitive development, younger children often fail in integrating social information sources, and they have a less sophisticated understanding of social standards (e.g., Denham et al., 2005; Rybash, Roodin, & Hallion, 1979). For example, younger as compared to older children are less responsive to apologies of the offender (Darby & Schlencker, 1982). Second, the peer relations of children in late childhood are relatively stable (e.g., LaFontana & Cillessen, 2002). The transition to secondary school has not yet taken place (although such major life changes may be an interesting determinant of children's forgiveness tendencies in and of itself), and, their friendships are fairly stable (Berndt, 2004; Berndt & Hoyle, 1985). In sum, children in late childhood seem to be well suited for research that examines forgiveness tendencies in peer relationships.

What is Already Known About Forgiveness among Children?

Given the many potential benefits of forgiveness for children, it is perhaps surprising that the topic of forgiveness has been more or less neglected in developmental psychology. Why is this the case? Why has the study of forgiveness received so little attention in developmental psychology for so long?

An important reason for the relative lack of research on forgiveness in childhood likely reflects a broader and more general negative bias of traditional psychology. That is, researchers have tended to be more articulate about when and how things go wrong than when and how they go right (Seligman & Csikszentmihalyi, 2000). This is also true for research on conflict resolution strategies within peer relationships. Numerous studies have documented when and why children act with retaliation and hostility in response to a peer's offensive act (e.g., Hubbard et al., 2002; Peets, Hodges, Kikas, & Salmivalli, 2007; Peets, Hodges, & Salmivalli, 2008), whereas the question when and why children respond in a more prosocial or forgiving manner, and thus are in fact able to maintain their friendships, has received much less attention (Larson, 2000).

Admittedly, although responding with retaliation to a peer provocation not necessarily implies a lack of forgiveness (Fincham, Beach, & Davila, 2004; McCullough et al., 2000), the findings are still of relevance when initiating research on forgiveness

in children. For instance, retaliatory conflict strategies are generally negatively correlated with peer acceptance (e.g., Rose & Asher, 1999; Troop-Gordon & Asher, 2005). Along similar lines, reactive aggression, which is a retaliatory response to a perceived offense or provocation, is related to peer rejection, victimization, social withdrawal, and even physical abuse (Dodge, Lochman, Harnish, Bates, & Pettit, 1997; Hubbard et al., 2002; Poulin & Boivin, 2000). Such findings indeed suggest that children's ability to forgive may have beneficial rather than destructive effects on their peer relationships. However, they do not tell anything concrete about when and how children may respond with forgiveness toward offending peers. What can the literature tell us about when it goes right? What is already known about *forgiveness* in childhood?

The sparse body of research on forgiveness in children has approached the topic of forgiveness from different angles. First, Enright and colleagues adapted a social cognitive developmental perspective, arguing that children make cognitive decisions whenever they need to forgive or be forgiven, thereby suggesting that forgiveness reasoning parallels that for justice (e.g., Enright, Santos, & Al-Mabuk, 1989; Park & Enright, 1997). In response to this, Denham and colleagues (2005) pointed toward the emotional side of forgiveness, demonstrating that children's forgiveness tendencies are related to more feelings of empathy, and less of shame, and guilt (Denham et al., 2005). Moreover, Maio and colleagues (2008) linked several individual-level variables to children's tendency to forgive their father or mother. They demonstrated that children who were more likely to forgive their parents also possessed higher levels of extraversion, agreeableness, conscientiousness, emotional stability, intellect, and lower levels of hostility (Maio, Thomas, Fincham, & Carnelley, 2008).

A few other studies have provided suggestive evidence for the potential beneficial effects of forgiveness on children's personal well-being. For example, a study by Ahmed and Braithwaite (2006) demonstrated that a bully's mere *perception* of forgiveness in the victim reduced future bullying. In addition, Flanagan and colleagues showed how forgiveness may be a fruitful way of coping with negative peer experiences (Flanagan, Vanden Hoek, Ranter, & Reich, 2012). In their study children were asked to remember and describe a time when another peer at school bullied or hurt them severely, after which their self-reported forgiveness was assessed. The results revealed strong positive associations between forgiveness and levels of self-esteem, and negative associations with social anxiety. Together, these findings provide some initial and useful insight into the possible determinants and consequences that may play a role in forgiveness tendencies among children.

A Functional Perspective on Forgiveness

It is remarkable to note that, so far, relationship-specific variables that characterize the relationship between the victim and the offender typically have not been taken into account in previous research examining forgiveness among children. That is, it has not been investigated whether it makes a difference whether children forgive a friend or a casual peer. This is surprising particularly given the many studies conducted among adults revealing that the perceived value of the relationship between the victim and the offender appears to be central in facilitating forgiveness (e.g., Burnette et al., 2012; Fincham, 2000; Finkel et al., 2002; Kachadourian, Fincham, & Davila, 2004; McCullough, Kurzban, & Tabak, 2013). For example, McCullough and colleagues (1998) asked over 100 couples to report the extent to which they had forgiven their partner for two different offenses; the worst thing their partner had ever done to them, and the most recent serious thing their partner had done to them. It appeared that both the forgivers' and their partners' self-reported degree of closeness were related to forgivers' degree of forgiveness for both offenses. Karremans and Aarts (2007) demonstrated that even when the concept of relationship value (i.e., closeness) is activated outside a person's awareness, people tend to become more forgiving. In addition, Younger, Piferi, Jobe, and Lawler (2004) revealed that the most frequently mentioned reason for forgiveness amongst their student sample was that the relationship was 'too important to give up'. Hence, these findings demonstrate that whether someone responds in a forgiving manner for an important part depends on the nature of the relationship with the offender.

Consistent with research findings among adults, there is some suggestive evidence that children display the same tendency. For example, friends (vs. non-friends or acquaintances) are more likely to continue their interactions when a conflict is solved (Laursen, Finkelstein, & Betts, 2001). Children are also inclined to give the 'benefit of the doubt' to a friend or someone they like, whereas negative actions by a disliked other are first of all seen as hostile and intentional (Hymel, 1986; Peets et al., 2007; Peets, Hodges, & Salmivalli, 2008). Perhaps most importantly, Peets and colleagues (2013) recently examined how children deal with hurt caused by a liked or a disliked peer. It seems that hurt caused by a liked peer results in less negative responses than hurt caused by a disliked peer (Peets et al., 2013). These findings suggest that forgiveness among children also depends on the value a child ascribes to the relationship.

Why is the relational context so crucial in understanding the process of forgiveness? Such findings often have been explained in terms of evolutionary principles (McCullough, 2008). That is, acting in a forgiving manner helps people to preserve and protect valuable relationships upon which they rely for their own fitness (e.g., Burnette et al., 2012; McCullough, 2008; De Waal & Pokorny, 2005). For example,

close and valuable others provide mates, and care for offspring, which were vital to the survival of our ancestors. Forgiveness may therefore be shaped to a great extent by factors that indicate relationship value, such as the level of perceived friendship, thereby helping people to maintain these valuable relationships.

Based on the evidence summarized above, in this dissertation I take a functional perspective on forgiveness, and thereby conceptualize forgiveness as a 'valuable conflict resolution strategy depending on the relational context'. In other terms, I argue that the interpersonal context in which the offense took place is crucial in furthering our understanding about the possible determinants and consequences of forgiveness tendencies among children. In the next section of this introduction, I address the different research questions that are addressed in this dissertation. However, before doing so, I briefly introduce the paradigm that was mostly used in the studies reported in this dissertation.

The Research Paradigm

The few studies that previously examined children's forgiving and also retaliatory tendencies have relied almost exclusively on vignettes or hypothetical scenarios (e.g., Denham et al., 2005; Peets et al., 2007; 2008; Troop-Gordon & Asher, 2005; but see Flanagan et al., 2012; Peets et al., 2013). To increase ecological validity, and based on the assumption that most children are able to think of an offense that occurred in their daily life, in this dissertation I use a paradigm in which children are first asked to report an *actual* hurtful incident by a classmate. In particular, to manipulate the relational context, children are asked to recall a hurtful incident by a friend or a non-friend. The incidents vary in the extent to how severe they are, such that some children recall relatively severe incidents where they are a victim of bullying, whereas others write about a best friend who gossips, or one who does not keep her promises. Importantly, in essence any act by a peer that evokes feelings of hurt or negativity requires a certain degree of forgiveness.

In line with the definition of forgiveness as a *prosocial* change of motivation toward the offender, I subsequently measure forgiveness with both self-reports and behavioral tasks of such prosocial motivations toward the offending peer. In particular, in Chapter 3 a modified and easy to understand version of the often-used Transgression-Related Interpersonal Motivation (TRIM) Scale (McCullough et al., 1998) is used as an indicator of self-reported forgiveness. The average of its three subscales (revenge, avoidance, *and* benevolence) serves as indicator of self-reported forgiveness (see also Exline, Baumeister, Bushman, Campbell, & Finkel, 2004; McCullough et al., 1998). In addition to self-report measures of forgiveness, two behavioral measures are created. One is a lottery task in which the child is asked to think back to an offending peer, after which he or she receives 10 lottery

tickets with which one can win a movie voucher. The child is asked to divide the tickets between him- or herself and the offending peer. The number of tickets given to the offending peer is the behavioral indicator of forgiveness (and it correlates with the self-report measure of forgiveness, see Chapters 3, 4, and 5). Hence, considering the notion that forgiveness reduces negative feelings, and induces the recovery of positive feelings, the measures of this dissertation particularly assessed prosocial forgiving tendencies.

Overview of the Present Dissertation

The present dissertation seeks to increase our understanding of the determinants and consequences that are associated with children's propensity to forgive offending peers. The extant literature on forgiveness among children summarized in this introduction demonstrates that the empirical study on forgiveness received only little attention in developmental psychology, and thus many questions remain to be answered. Where to start when initiating research on forgiveness among children when there is so much to know?

Perhaps the most important question when initiating research on forgiveness in childhood is what the *consequences* are when children act in a forgiving manner. Therefore, in Chapter 2, I turn to the basic question when and why forgiveness among children is related to enhanced **psychological well-being**.

To guide and structure the many possible research directions on the determinants of forgiveness among children, I propose the following model (Figure 1.1). This model may serve as a framework for examining the determinants predicting children's forgiveness.

As can be seen, the child holds a central position in the model, and his or her forgiveness tendencies may be influenced by characteristics of the child him or herself, the peer group, the family context, and societal or cultural norms. Thus, a broad range of determinants at different levels of analysis may exert – perhaps even together – an influence on children's tendency to forgive offending peers. In the different chapters in this dissertation, I will touch upon every level of analysis with one or more studies. In the final chapter, I will discuss several possibilities that arise from the model to further examine forgiveness tendencies among children.

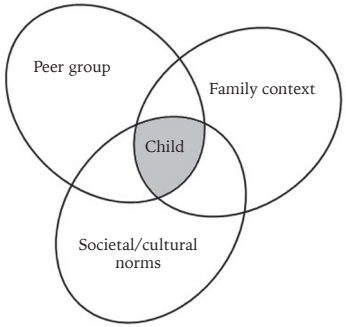

Figure 1.1. A model structuring the determinants of forgiveness among children at different levels of analysis.

It is important to note that given the functional perspective on forgiveness in this dissertation, the immediate relational context in which the offense occurred will always be taken into account in the studies presented in this dissertation (except for the studies of Chapter 6). That is, it will always be considered whether the child is forgiving a friend or a non-friend. I will now turn to the research questions that are addressed in the different chapters of this dissertation focusing on the potential determinants of children's forgiveness.

After exploring the consequences of children's forgiveness in Chapter 2, I start exploring the determinants of children's forgiveness in Chapter 3. Specifically, in Chapter 3, I examine the impact of **child characteristics** on children's forgiveness. There are numerous child characteristics that may contribute to children's propensity to forgive an offending peer (i.e., Big Five personality factors, attachment orientations, religious affiliations). In Chapter 3, however, I build on recent research suggesting that forgiveness is the result of both motivational and capacity processes. That is, initially research in the forgiveness domain mainly focused on *when* people are generally more strongly motivated to forgive an offender, revealing the key role of perceived relationship value (e.g., Finkel et al., 2002; McCullough, 2008). More recently, there has been growing theoretical and empirical attention to the *capacity* factors that may underlie forgiveness. Specifically, recent work suggests that high levels of executive control are related to forgiveness tendencies (Pronk, Karremans, Overbeek, Vermulst, & Wigboldus, 2010; cf. Finkel & Campbell, 2001). In Chapter 3, I aim to examine whether and how motivation and capacity may interact toward promoting forgiveness. Put differently, I will explore whether children's general ability to control their impulses is related to forgiveness tendencies in different relational contexts.

Second, in Chapter 4, I turn to the role of the **peer group**. As children in late childhood spend much of their time at schools in a peer group, it is not surprising

that their social standing in the peer group is strongly linked to their affective and behavioral responses (e.g., Cillessen, Schwartz, & Mayeux, 2011; Schwartz & Gorman, 2011). Hence, this social position may also affects children's tendency to forgive. As being popular is a strongly valued and salient construct in the social lives of children in late childhood (e.g., LaFontanta & Cillessen, 2002), Chapter 4 deals with the question whether and how children's popular social status in the classroom is related to their tendency to forgive offending peers.

Although child characteristics and the peer context may importantly affect children's tendency to forgive, they probably do not tell the whole story. It is possible that distal origins further help explain when and why children act with forgiveness when provoked by a peer. For instance, every child is raised differently by their **parents**, and faced with different behaviors from their parents. Is the way in which parents instruct their children how to respond to peer provocations, or the way parents deal with interpersonal offenses in the relationship with their partner, associated with their children's forgiveness? And, do these effects interact with the relational context in which the offense took place? Chapter 5 examines what the role of the parents is on children's level of forgiveness.

Children are also part of a bigger society where **societal rules and norms** may influence the way a child behaves in the classroom or responds to a peer provocation. In particular, in current Western society children are often told through intervention, smart phone apps, or at schools, that every child is a *special* individual (Twenge & Campbell, 2009). The idea behind such interventions is that boosting feelings of being special may increase children's self-worth, and subsequently this should lead to increased interpersonal functioning and social relationships (Branden, 1994). In Chapter 6, I seek to understand what the psychological and interpersonal consequences are when telling or reminding children that they are special. Specifically, Chapter 6 examines whether society's focus on individual specialness affects children's forgiving behavior in the wake of an offense.

To summarize, in the following chapters, studies are presented that examine the determinants and consequences of forgiveness among children. It should be noted that some chapters have previously been submitted to scientific journals. Hence, each chapter can be read independently of the other chapters, and the reader may encounter similarities among the introductions of the different empirical chapters.

Chapter 2

Forgiveness and Psychological Well-Being

This chapter is based on:
Van der Wal, R. C., Karremans, J. C., & Cillessen, A. H. N. (in press). Interpersonal forgiveness and psychological well-being in late childhood. *Merrill-Palmer Quarterly*.

Abstract

ALTHOUGH the ability to forgive offending peers may be crucial for maintaining long-term friendships in childhood, little is actually known about forgiveness among peers in childhood. In the present research we examined whether forgiveness among children is related to enhanced psychological well-being. Importantly, we hypothesized that this association should be most pronounced when friendship is strong rather than weak. In a sample of 275 9-13 year-old children who completed self-reported and behavioral measures of forgiveness and various indicators of psychological well-being, the present study revealed that forgiveness among peers was indeed associated with enhanced psychological well-being. In line with our predictions, the association with psychological well-being was stronger when it concerned forgiveness toward friends rather than forgiveness toward non-friends. Implications for the extant literature on forgiveness among children, and interpersonal relationships more broadly, are discussed.

Friendships are important in the lives of children, and generally provide them with positive outcomes, such as a sense of security and social support, and opportunities to develop emotionally and socially. At the same time, even in the closest friendship, it seems inevitable that children sometimes feel offended or hurt (e.g., Burk & Laursen, 2005; Laursen & Hafen, 2010). They may find out that a peer had lied to them, divulged a secret of them to others, or more extremely, children may bully or exclude each other. How are children able to maintain friendships in the face of such offenses? Are children able to overcome the often initial and natural impulse to retaliate the hurt? Does a forgiving response benefit the child's psychological well-being, even though the offense was painful? And if so, does the type of relationship in which forgiveness takes place play a role in affecting the child's psychological well-being?

Surprisingly little research has examined the role of forgiveness in children's peer relationships (but see Denham, Neal, Wilson, Pickering, & Boyatzis, 2005; Flanagan, Vanden Hoek, Ranter, & Reich, 2012; Peets, Hodges, & Salmivalli, 2013). Yet, the scientific literature on interpersonal forgiveness suggests that forgiveness may be one of the keys toward understanding how humans maintain close bonds with others (e.g., Karremans & Van Lange, 2008; McCullough et al., 1998; Paleari, Regalia, & Fincham, 2005). The main purpose of the current study was to examine whether children's tendency to forgive is associated with psychological well-being. Importantly, we argue that the association between children's forgiving tendencies and psychological well-being depends on the nature of the relationship in which forgiveness occurs.

The Benefits of Friendships in Childhood

Peer and friendship relations in late childhood play an essential role in children's social, emotional, and cognitive development (Berndt & Ladd, 1989; Sullivan, 1953). Research shows that friendships are associated with a greater sense of well-being, better self-esteem, and fewer social problems, both concurrently and later in life (e.g., Bukowski, Motzoi, & Meyer, 2009; Ladd, 1990; Marion, Laursen, Zettergren, & Bergman, 2013; Rose & Asher, 1999; Vitaro, Boivin, & Bukowski, 2009). In contrast, children and adolescents who are lacking close friendships are more likely to show behavioral and emotional problems during childhood and even adulthood (Berndt, 2002; Glick & Rose, 2011; Hartup, 1996; Ladd & Troop-Gordon, 2003; Newcomb & Bagwell, 1995). For example, they are more likely to feel lonely and isolated (Asher & Paquette, 2003), have low self-worth (Bagwell, Newcomb, & Bukowski, 1998), are victimized by peers (Hodges, Boivin, Vitaro, & Bukowski, 1999), or engage in deviant behaviors (e.g., Parker & Asher, 1993).

Given the numerous benefits of having close friendships, children's capacity to

maintain such friendships is of crucial importance. However, this may not be so easy, as negative interactions are especially salient in friendship relations (e.g., Burk & Laursen, 2005), and tend to intensify in late childhood when peer relations become more complex (Parker, Rubin, Erath, Wojslawowicz, & Buskirk, 2006). Hartup, French, Laursen, Johnston, and Ogawa (1993) demonstrated that conflict occurred most frequently, and lasted longer, in relationships in which children are socially interdependent and interact over substantial periods of time (Simpkins & Parke, 2002; cf. Fincham, 2000). Thus, to reap the benefits of long-lasting friendships, an important challenge for children is to maintain their friendships in the face of interpersonal offenses.

Forgiving Responses and the Maintenance of Friendships

How do children respond to a peer's offensive act? One way in which children may respond is to do harm in return (e.g., McCullough, Fincham, & Tsang, 2003; Rose & Asher, 1999). Indeed, Troop-Gordon and Asher (2005) demonstrated that children often rely on aggressive and retaliatory strategies when encountering an offense. However, while retaliatory responses may occur relatively automatically and may provide an immediate sense of reward (e.g., Singer et al., 2006), they may be detrimental for the relationship. Instead, responding in a more forgiving manner may be more beneficial to the maintenance of close relationships (e.g., Fincham, 2000; McCullough, Worthington, & Rachal, 1997; Paleari et al., 2005). Forgiveness can be defined as the process of regulating negative emotions, cognitions, and behavior caused by another person's hurtful behavior into more neutral or positive emotions, cognitions, and behavior toward the offender (Karremans & Van Lange, 2008; McCullough et al., 1998). While it may seem only natural that an initial and impulsive response to an offense is to retaliate, forgiveness involves the ability to inhibit and transform such an impulsive response, and instead react in a more prosocial manner to the offender.

Consistent with research among adults (e.g., Finkel, Rusbult, Kumashiro, & Hannon, 2002; Karremans & Aarts, 2007), some recent evidence suggests that children tend to be more forgiving toward offending friends than non-friends (Peets, Hodges, Kikas, & Salmivalli, 2007; Peets et al., 2013). Peets et al. (2013) demonstrated that hurt caused by a disliked (vs. liked) transgressor resulted in more negative responses (hostile attributions, angry feelings) than hurt caused by a liked peer. Moreover, friends (vs. non-friends or acquaintances) are more likely to make concessions, and to continue their interactions when the conflict is solved (Laursen, Finkelstein, & Betts, 2001). Such findings support the notion that forgiveness is an important mechanism by which children maintain friendships, despite the inevitable offenses that occur within them.

Forgiving Responses and Psychological Well-being

Are children's forgiving tendencies associated with their psychological well-being? To address this question, we argue that it is important to consider the relationship context in which forgiveness (or the lack thereof) takes place. Despite the general finding that friendship promotes forgiving tendencies, children may not always be capable of responding in a forgiving manner when offended, even when the offender is a close friend. In fact, in some instances it may even be harder to forgive a friend than a non-friend, for example when basic friendship norms, such as trust, are threatened (e.g., breaking a promise; see Karremans, Van Lange, Ouwerkerk, & Kluwer, 2003, for similar reasoning). Although in some cases children may psychologically distance themselves from a friend (i.e., reducing the friendship), there may also be moments, particularly in long-term friendships, when a child actually wants to maintain the friendship despite of what happened. Thus, at some point, children may find themselves in a situation in which 1) they are in a close friendship with a peer, while at the same time 2) they find it difficult to forgive the offending friend.

We argue that the second situation is particularly important for understanding the association between children's forgiveness and their psychological well-being. Psychological well-being can be seen as a broad category of phenomena that includes emotional responses, domain satisfactions, and global judgments of life satisfaction (based on Diener, Suh, Lucas, & Smith, 1999). Specifically, the lack of forgiveness toward a friend – and less so toward a non-friend – may undermine psychological well-being in at least two ways. First, the lack of forgiveness may be related to hostile and retaliatory behavioral responses that may deteriorate the relationship with the friend (Karremans & Van Lange, 2005). Such responses may set into motion a reciprocal cycle of negativity within the friendship relationship. Research indicates that children using hostile and retaliatory conflict strategies in response to (hypothetical) offenses by peers have poor-quality friendships, and are less accepted by their peers (Newcomb, Bukowski, & Pattee, 1993; Rose & Asher, 1999; Troop-Gordon & Asher, 2005). Thus, given the otherwise beneficial outcomes of friendships, children's inability to forgive a friend may undermine their psychological well-being because it deteriorates friendships.

Second, and relatedly, a child's lack of forgiveness toward an interpersonal offense with a friend is *psychologically* incongruent with the child's motivation to maintain the friendship. Previous research has demonstrated that the combination of a lack of forgiveness on the one hand, and the motivation to maintain a close relationship on the other hand, can contribute to a state of psychological tension, which in itself is related to decreases in psychological well-being (Karremans et al., 2003; Kluwer & Karremans, 2009). A child who is hurt by a good friend, but is not able to forgive the friend, may feel torn between the motivation to retaliate

and the motivation to maintain the friendship. Psychological tension created by these competing motives may negatively affect a child's overall psychological well-being.

Some initial evidence suggests that the lack of forgiveness may negatively influence a child's psychological well-being (e.g., Baskin & Enright, 2004; Toussaint, Williams, Musick, & Everson-Rose, 2008; cf. Egan & Todorov, 2009). In particular, Flanagan et al. (2012) demonstrated that children who are less forgiving have lower self-esteem and are more socially anxious. Importantly, however, they did not take the relational context into account. Based on the analysis above, we reason that the degree to which forgiveness is associated with psychological well-being should be affected by the child's relationship with the offending peer. A child who is generally unforgiving toward friends may have difficulty maintaining friendships, and may experience psychological tension relatively often, which both may undermine psychological well-being. Such processes should be less relevant to forgiving or not forgiving a non-friend.

Thus, we predict that children's general level of forgiveness, particularly toward friends (rather than non-friends) should be positively associated with their psychological well-being. To test this general prediction, we asked children to think back to an offense either by a friend (friend condition) or by a non-friend (non-friend condition). In addition to measuring their level of forgiveness regarding the past offense (with both a self-report and a behavioral indicator of forgiveness), we measured children's psychological well-being in various ways.

STUDY 2.1

Method

Participants

Participants were fourth- through sixth-grade children from seven elementary schools in the Netherlands. Passive parental consent was obtained a week before the study was conducted. A total of 335 children agreed to participate (participation rate = 96.5%). We excluded children who did not complete the questionnaire because they were absent (n = 5) or due to time constraints (n = 12), or because they could not recall a hurtful incident (n = 26). We dropped 17 additional participants from the analyses who did not follow the instructions (e.g., worked together with a classmate instead of on their own; n = 7), or had missing data on two of the main variables (forgiveness and psychological well-being; n = 10). As a result, complete data were available for 275 children, ranging in age from 9 to 13 years

old (149 girls; M_{age} = 10.41, SD_{age} = .88; see Table 2.1 for Means and SD's per grade). Participants were randomly assigned to the friend (n = 134) or non-friend condition (n = 141). Participants received a small gift in exchange for their voluntary participation.[1]

Table 2.1
Number of Boys and Girls, and Means and Standard Deviations of Age for Grade 6, 7, and 8

		n		Age	
	Total	Boys	Girls	*M*	*SD*
Grade 6	87	36	51	9.71	.53
Grade 7	137	66	71	10.42	.60
Grade 8	51	24	27	11.57	.73

Procedure

After a short plenary introduction, children received the paper-and-pencil questionnaire and were first asked to recall an incident in which they felt offended by one of their classmates using the following instructions:

*"In a moment you will get some questions about something hurtful one of your classmates did to you. For example, a classmate did something unkind to you, which made you feel really angry or sad. Please think back to such a situation you had with one of your classmates who is "your friend" (*friend condition*) or "not your friend" (*non-friend condition*)"*.

Participants were asked to briefly describe what happened. Example descriptions were: "*It really hurt me when my classmate called me little baby (as I am quite small for my age)*" and "*I heard my best friend gossiping about me*". Children then completed several measures. As a manipulation check, we asked them to rate to what extent they were friends with the offending classmate at the time of the offense from 1 (*not at all*) to 7 (*very much*). In addition, we asked them how severe they thought the offense was, from 1 (*not severe*) to 7 (*very severe*), M = 5.07, SD = 1.67, and how long ago the offense took place (1 = *today or yesterday*, 2 = *a week ago*, 3 = *a month ago*, and 4 = *more than a year ago*).

After participants completed the questionnaire regarding the offense, we measured their self-reported forgiveness level. Next, after a short break in which participants completed a connect-the-dots puzzle, we measured participants' behavioral forgiveness tendencies. At the end of the study, and after some unrelated

[1] The data were collected in two cohorts (cohort 1: n = 195, and cohort 2: n = 80) with approximately four months in between. Adding 'time of data collection' as a factor to the analyses did not change the results.

filler tasks, we assessed participants' psychological well-being. Finally, participants were thoroughly debriefed and thanked for their participation.

Measures

Self-reported forgiveness. We measured self-reported level of forgiveness toward the offending classmate with a modified Dutch version of a forgiveness scale developed by Maio, Thomas, Fincham, and Carnelley (2008) (see also Karremans et al., 2011). Due to translation difficulties, we deleted two items of the originally 8-item questionnaire. Our measure thus consisted of six items rated on a 7-point Likert scale from 1 (*completely disagree*) to 7 (*completely agree*). We used the mean of the six items as our indicator of forgiveness; $M = 4.37$, $SD = 1.69$. Example items were: If I think back to what my classmate did to me, "I see my classmate as positively as before", and "I can easily forgive my classmate". Cronbach's α was .88.

Behavioral forgiveness. To measure participants' behavioral forgiveness level, they were pointed to a nicely decorated gift in front of the classroom, and were told that the peer with the highest number of credits would win the gift. Participants were asked to recall once more the offending classmate and to indicate how many credits they would like to give him or her (with a minimum of 1 and a maximum of 10). The number of credits participants gave to the offending classmate was our behavioral indicator of forgiveness, $M = 5.10$, $SD = 2.93$, range 1-10. This behavioral measure correlated with the self-report measure of forgiveness, $r = .50$, $p < .001$.

Psychological well-being. We measured participants' psychological well-being using items that directly ask children to evaluate their lives as a whole without specifying particular aspects, as recommended by Huebner and Alderman (1993) (see also Cummins, 1996; Eid & Diener, 2004). Specifically, we first used the Delighted-Terrible Scale (Andrews & Withey, 1976) to assess *general life happiness*. Participants saw a picture of five faces from sad to happy. Then they were told that the smiling face, the fifth one, indicates that you are really happy with life (including school, friends, and at home). The sad face, the first one, indicates that you are really not very happy with life. Participants were instructed to circle the number that best fit how they felt at the moment; $M = 4.15$, $SD = .90$.

Second, based on Cantril's Self-Anchoring Scale (the ladder), we measured *general life satisfaction* by asking participants to grade their life from 1 to 10 (Cantril, 1965); $M = 8.21$, $SD = 1.75$. This measure correlated strongly with the general happiness measure of well-being, $r = .74$, $p < .001$.

Third, we also assessed participants' *state self-esteem* with three items; "I have a positive attitude toward myself", "I have a bad feeling about myself" (reverse coded), and "I am satisfied with myself" on a 7-point Likert scale from 1 (*completely disagree*) to 7 (*completely agree*); $M = 5.49$, $SD = 1.34$, Cronbach's $\alpha = .80$ (based

on Robins, Hendin, & Trzesniewski, 2001). This measure correlated with the other two measures of psychological well-being, general life happiness, $r = .42$, $p < .001$, and general life satisfaction, $r = .46$, $p < .001$.[2]

Given that the three well-being measures correlated substantially with each other, r's > .42, and that a principal component analysis revealed only one overarching component, we clustered the three well-being measures together in one composite psychological well-being score. We did this by standardizing the three measures first so that they were on the same metric, and then took the average. Cronbach's α for the composite score of the three separate measures was .78.

Results

Preliminary Analyses

Manipulation check. An ANOVA revealed a significant effect of the friendship condition on perceived friendship, $F(1, 273) = 92.59$, $p < .001$, $\eta_p^2 = .25$. Participants reported higher friendship with a friend ($M = 4.24$, $SD = 1.95$) than with a non-friend ($M = 2.19$, $SD = 1.58$). Thus, the instructions caused the intended effects.

Friendship condition and forgiveness. Replicating previous findings by Peets et al. (2013), an ANOVA revealed a significant effect of the friendship condition on self-reported forgiveness, $F(1, 273) = 71.10$, $p < .001$, $\eta_p^2 = .21$, indicating more forgiveness to friends ($M = 5.16$, $SD = 1.54$) than to non-friends ($M = 3.62$, $SD = 1.49$). We found similar effects of friendship condition on forgiveness behavior, $F(1, 273) = 56.75$, $p < .001$, $\eta_p^2 = .17$, such that participants acted more forgivingly in response to an offense by a friend ($M = 6.35$, $SD = 2.73$) than a non-friend ($M = 3.92$, $SD = 2.61$).

Self-reported Forgiveness and Psychological Well-being

We predicted that the positive association between forgiveness and psychological well-being would be more pronounced in the friend condition than in the non-friend

[2] In addition to the three psychological well-being measures presented in this study, a subsample of the participants (*cohort 2*) also completed a positive and negative affect scale. At the end of the questionnaire, participants indicated on a 5-point Likert scale from 1 *never* to 5 *every day* how they felt last week. An example item for the positive affect scale was "I felt happy", $M = 3.82$, $SD = .63$, $\alpha = .59$, and for the negative affect scale, "I felt tired", recoded, $M = 2.19$, $SD = .73$, $\alpha = .48$ (see Abdallah, Steuern, Marks, & Page, 2008). Regression analyses on the affect measures did not reveal any main effects of forgiveness level, p's > .239, interaction effects with friendship condition, p's > .468, or main effects of either self-reported or behavioral forgiveness on positive or negative affect in the friendship condition, p's > .134. Given the relatively low reliability of both scales, a possible explanation for the non-significant findings is that children were not sufficiently able to answer the questions with these anchors.

condition. To test this hypothesis, psychological well-being was regressed on the centered measure of self-reported forgiveness, friendship condition (contrast coded: friend = 1, non-friend = -1), and the interaction between the centered self-reported forgiveness measure and friendship condition.

Replicating previous findings (Flanagan et al., 2012), the analysis revealed a main effect of self-reported forgiveness, $\beta = .19$, $t(271) = 2.86$, $p = .005$, indicating a positive association between psychological well-being and self-reported forgiveness. We did not find a main effect of friendship condition, $p = .747$. Most importantly, the analysis yielded a significant interaction between self-reported forgiveness and friendship condition, $\beta = .14$, $t(271) = 2.34$, $p = .020$. In line with our central hypothesis, tests of the effects by friendship condition (Aiken & West, 1991) revealed that self-reported forgiveness toward friends was significantly associated with increased psychological well-being, $\beta = .34$, $t(132) = 4.09$, $p < .001$. Forgiveness toward non-friends was not associated with psychological well-being, $\beta = .03$, $t(139) = .34$, $p = .736$ (see Figure 2.1). Notably, controlling for perceived severity or time since the offense did not change the pattern of results.

Table 2.2

Beta Values of the Interactions Between Self-reported Forgiveness and Forgiveness Behavior and Friendship Condition, and of the Effects within Non-Friend and Friend Condition

Psychological Well-being	Forgiveness X Friendship		Forgiveness Non-Friend		Forgiveness Friend	
	Self-report	*Behavior*	*Self-report*	*Behavior*	*Self-report*	*Behavior*
Composite Well-being	.14*	.13*	.03	.02	.34**	.30**
General Life Happiness	.07	.09	.12	.06	.31**	.29*
General Life Satisfaction	.10†	.10†	.04	.05	.28*	.30**
State Self-esteem	.16*	.12*	-.06	-.06	.28*	.19*

Note. † $p < .10$, * $p < .05$, ** $p < .001$.

As can be seen in Table 2.2, although the interaction term did not reach significance for all three indicators of psychological well-being separately, for all three indicators the effect of forgiveness was significant in the friend condition, but not in the non-friend condition.

Behavioral Forgiveness and Psychological Well-being

We ran a similar regression analysis in which psychological well-being was regressed on the centered measure of forgiveness behavior, friendship condition (contrast coded: friend = 1, non-friend = -1), and the interaction between the centered behavioral forgiveness measure and friendship condition. This analysis yielded a main effect of behavioral forgiveness, $\beta = .17$, $t(271) = 2.55$, $p = .011$, and no main effect of friendship condition, $p = .492$. Again, the analysis revealed a significant interaction between behavioral forgiveness and friendship condition, $\beta = .13$, $t(271) = 2.12$, $p = .035$. More behavioral forgiveness toward friends was associated with more psychological well-being, $\beta = .30$, $t(132) = 3.66$, $p < .001$, whereas this was not true for forgiveness toward non-friends, $\beta = .02$, $t(139) = .28$, $p = .784$ (see Figure 2.2). The results remained the same if we controlled for perceived severity or time since the offense.

Figure 2.1. The effect of varying levels of *self-reported* forgiveness toward friends and non-friends on the composite well-being measure.

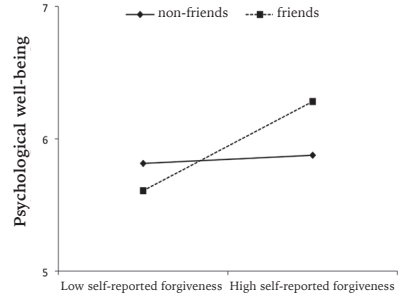

Figure 2.2. The effect of varying levels of *behavioral* forgiveness toward friends and non-friends on the composite well-being measure.

Again, Table 2.2 shows that, although the interaction term did not reach significance for all three indicators of psychological well-being separately, the effect of forgiveness was significant in the friend condition but not in the non-friend condition for each indicator of well-being. In short, these findings support our hypothesis that children's tendency to forgive is positively related to psychological well-being, but only when forgiving a close other (a friend), and not when forgiving a non-close other (a non-friend).

Gender Differences

We explored whether gender affected the above-described findings. First, we found no significant three-way interaction between self-reported forgiveness, friendship condition, and gender, on composite well-being, $p = .962$. However, a regression analysis with forgiveness *behavior*, friendship condition, and gender, did reveal a significant three-way interaction on composite well-being, $\beta = .14$, $t(267) = 2.11$, $p = .036$. Unexpectedly, further testing revealed that the two-way interaction between behavioral forgiveness and friendship condition was significant for girls, $\beta = .23$, $t(145) = 2.92$, $p = .004$, but not for boys, $\beta = -.03$, $t(122) = -.39$, $p = .699$. Girls' forgiving behavior was significantly positively associated with well-being when forgiving a friend, $\beta = .37$, $t(66) = 3.30$, $p = .002$, but not when forgiving a non-friend, $p = .367$.[3]

GENERAL DISCUSSION

Conflict and disagreement are not uncommon in peer relations, and in fact, inevitable aspects of a peer relationship. Not being able to successfully deal with interpersonal offenses may have detrimental effects on a child's well-being (e.g., Berndt, 2002). In the current research we addressed whether responding in a forgiving manner toward interpersonal offenses may be related to enhanced psychological well-being. The findings suggest that acting forgivingly toward a prior offense by a classmate is indeed associated with higher levels of psychological well-being, but only in relationships of strong as compared to weak commitment (i.e., friends vs. non-friends). As such, the current research extends previous research by suggesting that the relational peer context is essential to understand when and why forgiveness is associated with increased psychological well-being.

Why is forgiveness only positively related to psychological well-being in relationships with friends? As noted before, one of the explanations may be related to the generally positive impact of stable friendships. Children who forgive their offending friends are more likely to restore positive relations with them; in comparison, children who are relatively less forgiving toward offending friends harm their relationships. Because the lack of positive, supportive peer relations has been linked to numerous negative outcomes (e.g., Berndt, 2002; Hartup, 1996), forgiveness is likely to be associated with psychological well-being precisely because forgiveness helps children to maintain and restore a set of stable and close relationships (Bono, McCullough, & Root, 2008; McCullough, 2000). Moreover, despite

[3] This study was part of a larger project in which we also collected data on sociometric status and parental forgiveness tendencies (see Chapters 4 and 5 of this dissertation).

the perceived feelings of friendship toward the offender, children may sometimes – for whatever reason – still lack the ability to actually forgive the offender. Based on previous work we reasoned that the combination of strong commitment (i.e., feelings of friendship) and absence of forgiveness contributes to psychological tension, which may be a second explanation of the reduced levels of psychological well-being when a child is unable to forgive his or her offending friend.

The present research makes an important contribution to the emerging literature on forgiveness among children. To date, research on forgiveness has focused mainly on adults, while forgiveness among children has received little empirical or theoretical attention in the scientific literature. Although the nature of transgressions differs between children and adults, the current study reveals that similar underlying processes may influence children's tendency to forgive. Specifically, previous studies among adults found a comparable pattern for the moderating role of relationship commitment on the association between forgiveness and psychological well-being (e.g., Karremans et al., 2003; Kluwer & Karremans, 2009). Moreover, a similar overlap has been demonstrated concerning the nature of the relationship and forgiveness tendencies; both adults and children seem to be more strongly motivated to use forgiving strategies when they are provoked by a friend than by a non-friend (Finkel et al., 2002; Peets et al., 2013). Nonetheless, what is universal or unique about forgiveness at different ages and at different developmental stages remains an important topic for future investigation.

An interesting question is whether the association between interpersonal forgiveness and psychological well-being differs by age and across different developmental stages. According to our functional perspective on forgiveness, forgiveness should be associated with well-being particularly strongly during stages in which friendships are most important, such as in early childhood when children start to untie their parental bonds and increasingly focus on relationships with peers (Hartup & Stevens, 1997; Sullivan, 1953). In late adolescence, when the emphasis shifts from friendships to partner relationships, or during adulthood, when individuals spend less time with their friends (Hartup & Stevens, 1997), the association between forgiving friends and well-being may be less strong.

The current study also raises some questions about the roots of individual differences in forgiveness at this specific developmental stage. It is, for example, very likely that parents and family factors play an important role in promoting children's propensity to forgive their peers, as children may learn from their parents how to respond to interpersonal conflict. To gain a broader understanding of when and why children forgive it would be interesting to examine how parents affect children's forgiving behavior (see Chapter 5 of this dissertation).

On a more practical note, the current study provides insight into the question whether we should tell children to forgive their offending peers or not. Interestingly, it seems that lay people have very different views on what best serves a child's

well-being. For example, a recent study found that parents diverge widely in the kind of advice they give their children when offended or hurt by another child; whereas some believe that it is in the child's best interest to respond in a retaliatory manner, other parents advice their children to inhibit such responses and forgive the offending peer's hurtful behavior (Chapter 5). Although the present findings are correlational, they may suggest that it is often in the child's best interest to act forgivingly, at least toward their friends. At the same time, it is important to note that it may not always be beneficial to forgive. For example, when an offending peer hurts the child repeatedly, forgiveness is most likely not the most appropriate response as it may even result in lower self-worth (Luchies, Finkel, McNulty, & Kumashiro, 2010; McNulty, 2008).

Furthermore, it is important to note that in the non-friend as compared to the friend-condition the offenders represent a more heterogeneous group that include both neutral and disliked others. One may wonder whether forgiveness toward neutral or disliked others is differently related to levels of psychological well-being. As we argued in the introduction, understanding the link between forgiveness and well-being partly depends on conflicting goals (a lack of forgiveness conflicts with the goal of maintaining a friendship, which creates tension and lowers well-being). Accordingly, we expect no clear difference between the level of forgiveness of neutral or disliked others and the association with psychological well-being, as in both these relationships the goal of maintaining the relationship is weak or absent. Similarly, in the friend condition, we expect level of forgiveness to be associated with psychological well-being particularly when the friendship bond is strong (i.e., in high quality friendships).

In the present study, we found some gender differences in the association between forgiveness and well-being. Specifically, exploratory analyses revealed that friendship moderated the relationship between forgiveness *behavior* and psychological well-being for girls, but not for boys. Frankly, we did not expect this and it was also not found on *self-reported* forgiveness. Given that girls tend to have stronger relationship maintenance goals and a greater tendency to solve conflicts with peers (e.g., Rose & Asher, 1999), very speculatively, an explanation could be that girls' psychological well-being is more strongly related to *overt* behavioral expressions of forgiveness (that can be noticed by an offending peer), whereas this may be less important for boys.

We should note some limitations. First, the cross-sectional design of the present study prevents us from drawing conclusions about causal links or possible feedback loops among perceived friendship, (un)forgiveness, and psychological well-being. For instance, acting in a forgiving manner establishes and restores good and stable friendships, but, in turn, healthy relationships may also increase the inclination to forgive (e.g., Karremans & Van Lange, 2008; Paleari et al., 2005). In addition, not only may a stronger forgiving response be related to enhanced well-being, it may

very well be that children are better capable of forgiving offending others when their psychological well-being is high. Indeed, Bono and colleagues (2008) found that earlier well-being was associated with later increases in forgiveness. Also, there is good reason to expect that the way children respond to conflict may be influenced by earlier interactions they had. Specifically, children were asked to think of a friend or non-friend *after* the incident had taken place. Obviously, the incident itself may have (negatively) affected feelings of perceived friendship. Future prospective and longitudinal research whereby perceived friendship is measured *before* an offense takes place is needed to reveal such possible feedback loops.

Second, we cannot be sure whether the behavioral measure indeed reflects forgiveness per se, or whether it reflects children's prosocial tendencies in general. As a measure of forgiving behavior we assessed children's prosocial responses toward the offending classmate (i.e., the number of credits given to the offending classmate to win a gift). Given that participants were giving these credits to the other child while thinking about the offense, we reasoned that the behavior would reflect the level of forgiveness regarding the offense. Supporting this reasoning, the behavioral measure strongly correlated with the self-report measure of forgiveness, $r = .50$, $p < .001$. This, however, does not rule out the possibility that the measure, at least partly, reflects a child's prosocial tendencies in general. Indeed, such general prosocial tendencies may also be associated with psychological well-being (e.g., Ryan & Deci, 2001).

Third, we did not incorporate the views from both children in the relationship (e.g., Burk & Laursen, 2005). In fact, whereas the present study suggests that the psychological consequences of forgiveness need to be considered in light of the relationship, we solely focused on the perceptions and behavior of the offender by the offended peer. It would be interesting to involve the perspectives of both dyad members in future research. An exploration of dyadic perceptions of forgiveness may demonstrate whether shared perceptions of forgiveness are linked to children's well-being. In addition, dyadic data may clarify whether (shared) perceptions of forgiveness also benefit the individual well-being of the forgiven peer.

Last, the present findings provide evidence in line with our reasoning that forgiveness of friends in particular (rather than non-friends) is associated with psychological well-being. However, in this study we examined forgiveness regarding only one specific recalled incident with a friend or non-friend. Although forgiveness reports regarding a specific incident are generally correlated with dispositional forgiving tendencies (e.g., Eaton, Struthers, & Santelli, 2006; Fehr, Gelfand, & Nag, 2010), one may wonder whether general forgiving tendencies, particularly toward friends, are associated with psychological well-being, as we suggested in the introduction. In the present study, the findings may partly be driven by the fact that participants were instructed to bring to mind a past offense, which may have temporarily decreased well-being. Although we do not know how often children

spontaneously recall past incidents, evidence suggests that children particularly tend to ruminate about conflicts with friends (Peets et al., 2013). According to our psychological tension account, each time an unforgiven offense of a friend is brought to mind would negatively affect current well-being, and ruminating about such an offense may have a long-term impact on well-being. Thus, we argue that children's unforgiving tendencies toward friends across situations negatively affect well-being by accumulation of psychological tension, and because it may deteriorate friendships. However, whether forgiveness across various offenses with various friends and non-friends indeed is differently associated with well-being remains an important question for future studies.

Conclusion

To conclude, maintaining close relationships with peers may be a challenging - yet rewarding – endeavor throughout childhood. The current study highlights that acting in a forgiving manner toward interpersonal offenses by friends is related to enhanced psychological well-being, and as such may be a fruitful way in cultivating essential peer relationships.

Chapter 3

Forgiveness and Executive Control

This chapter is based on:
Van der Wal, R. C., Karremans, J. C., & Cillessen, A. H. N. (2014). It takes two to forgive: The interactive role of relationship value and executive control. *Personality and Social Psychology Bulletin, 40,* 803-815.

Abstract

PREVIOUS research demonstrated that perceived relationship value is a strong predictor of forgiveness. Here we suggest that relationship value may not be sufficient. Given that executive control is an important facilitator of forgiveness, we predicted that relationship value and executive control should interact toward promoting forgiveness. Using different indicators of executive control, including adults and children samples, measured or experimentally varied relationship value, and both self-report and behavioral forgiveness measures, across four studies we found support for our main prediction: relationship value was positively associated with forgiveness, however, this association was mostly pronounced among individuals high (vs. low) in executive control. Additionally, executive control was positively associated with forgiveness, but particularly in relationships of high (vs. low) relationship value. These findings suggest that relationship value and executive control *in combination* are associated with higher interpersonal forgiveness. Implications for the extant literature on forgiveness, and interpersonal relationships more broadly, are discussed.

In every type of relationship, between friends, romantic partners, or sometimes even strangers, it seems inevitable that people offend each other occasionally. Although the initial urge is often to retaliate (Slotter et al., 2012; Yovetich & Rusbult, 1994), there is good evidence that – generally speaking – responding in a forgiving manner leads to more beneficial outcomes. Forgiveness, defined as a prosocial change toward the offender despite the offender's hurtful actions (McCullough et al., 1998), is not only an essential aspect of well-functioning and lasting interpersonal relationships (e.g., Paleari, Regalia, & Fincham, 2005), it may also increase psychological and physical well-being (e.g., Karremans, Van Lange, Ouwerkerk, & Kluwer 2003; Witvliet, Ludwig, & Vander Laan, 2001; but see Luchies, Finkel, McNulty, & Kumashiro, 2010; McNulty, 2008).

A person's willingness to forgive greatly depends on the nature of the relationship with the offender. In general, one could say that the more *valuable* the relationship, the more likely people are to forgive their offenders (McCullough, 2008).[4] For example, studies have shown that people are more inclined to forgive individuals to whom they feel close and committed (Finkel, Rusbult, Kumashiro, & Hannon, 2002; Karremans & Aarts, 2007; Karremans et al., 2011; McCullough, 2008), securely attached (Kachadourian, Fincham, & Davila, 2004), or experience a strong friendship bond with (e.g., Park & Enright, 1997). The extent to which people value their relationship with the offender predicts forgiveness levels even 100 days after the offense took place (McCullough, Luna, Berry, Tabak, & Bono, 2010). Such findings are in line with a functional perspective on forgiveness, which argues that forgiveness may have evolved precisely because it facilitates the maintenance of valuable (i.e., fitness promoting) relationships, even in the face of inevitable offenses (Aureli & De Waal, 2000; Burnette et al., 2012; McCullough, Kurzban, & Tabak, 2013).

However, recent research findings suggest that the value a person attaches to the relationship with the offender may not be sufficient to promote forgiveness. Although people may be willing and motivated to forgive a valuable relationship partner, sometimes they may lack the *ability* to do so. Specifically, recent findings have demonstrated that the ability to forgive depends on a person's level of *executive control* (Pronk, Karremans, Overbeek, Vermulst, & Wigboldus, 2010; Wilkowski, Robinson, & Troop-Gordon, 2010). Executive control refers to a set of cognitive processes that control and regulate thought and action in a goal-directed manner

[4] In evolutionary terminology, relationship value is used as a broad concept referring to the degree to which an interpersonal relationship serves some fitness value (i.e., promoting survival and/or reproduction; e.g., Burnette, McCullough, Van Tongeren, & Davis, 2012). Of course, people generally do not think in terms of fitness enhancing properties when they value a relationship highly. Instead, for the present purposes, we define valuable relationships as relationships that people feel are important to them, and are committed to maintain in the future. Specific psychological proxies for relationship value are for example experienced relationship closeness and commitment, strength of friendship bonds, and feelings of attachment.

(Denckla, 1996). How does executive control facilitate forgiveness? Although different components of executive control have been distinguished (i.e., inhibition, task-switching, and updating; e.g., Miyake, Friedman, Emerson, Witzki, & Howerton, 2000; we return to this issue in the General Discussion), we propose that *inhibitory* control in particular should be positively associated with interpersonal forgiveness. In the wake of an offense, people may sometimes be willing to forgive an offender, but still have unwanted negative thoughts and feelings about the offending partner. Higher levels of executive control facilitate the *inhibition* of negative emotional and retaliatory responses, which in turn should promote forgiveness. Indeed, it has been demonstrated that individual differences in executive control are positively associated with interpersonal forgiveness (Pronk et al., 2010; Wilkowski et al., 2010; cf. Balliet, Li, & Joireman, 2011; Finkel & Campbell, 2011).

These findings may indicate that individuals who have the motivation and intention to forgive their valuable relationship partners should, *in addition*, have the capacity to regulate and inhibit retaliatory feelings and thoughts in order to actually forgive the offender. This reasoning is in line with dual-process models that stress the interactive role of motivation and capacity: both are required to override impulsive responses – in this case retaliatory feelings and thoughts (e.g., Chaiken & Trope, 1999; Smith & DeCoster, 2000). However, so far the respective roles of relationship value and executive control have been examined largely in isolation from each other: some studies have shown that indicators of relationship value, such as relationship closeness or friendship, are positively related to forgiveness, while other studies have demonstrated that executive control is associated with higher levels of forgiveness. To fully understand the motivational and cognitive processes underlying interpersonal forgiveness, an interesting and important question is whether and how relationship value and executive control work together in promoting forgiveness.

In general, relationship value promotes higher levels of forgiveness. However, we reason that someone who values a relationship highly, but lacks executive control capacity, should be less able to actually forgive the offending partner, as compared to someone who values the relationship highly and has high levels of executive control. Given his or her superior executive skills, the latter person will be able to exert these cognitive skills to actually inhibit and regulate his or her retaliatory tendencies, and instead respond forgivingly. On the other hand, a person with low levels of executive control may be very motivated to forgive someone he or she experiences a strong and valuable bond with, but is lacking the ability to inhibit retaliatory feelings and thoughts toward the offending partner. Thus, we suggest that, despite the robust role of relationship value as found in previous research, relationship value is not sufficient to forgive, and executive control should moderate its effect. Specifically, we hypothesized that relationship value is positively associated with forgiveness, but this association will be stronger among individuals high as compared to low in executive control.

Based on similar reasoning, we argue that executive control is not sufficient to promote forgiveness. A person with relatively high levels of executive control, but who lacks the motivation to forgive an offender because he or she does not value the relationship highly, will be less likely to exert executive control in order to actually forgive the offender. Accordingly, we hypothesize that the role of executive control in forgiveness is moderated by relationship value: executive control is positively associated with forgiveness, but this association should be more strongly pronounced in relationships of high (vs. low) relationship value.

We tested our predictions across four studies, with divergent but complementary measures of executive control, self-reported and behavioral indices of forgiveness, and experimentally induced variations of relationship value. Relationship value was operationalized in terms of perceived relationship commitment (Studies 3.1 and 3.4), or perceived friendship (Studies 3.2 and 3.3). Finally, as will be discussed further in the Introduction to Study 3.2, we tested our predictions not only in adults (i.e., undergraduates), but also in children.

STUDY 3.1

Study 3.1 was designed to provide initial evidence for the prediction that relationship value would be associated with forgiveness, and that this association should be stronger among individuals relatively high in executive control; and to see whether executive control is associated with forgiveness, but particularly in relationships of high (vs. low) relationship value.

Method

Participants

A sample of 135 undergraduate students (115 women; $M_{age} = 20.79$, $SD_{age} = 2.49$) participated in the study for course credit or money. We did not include the data of participants who did not recall an offense ($n = 6$).

Procedure

Upon arrival in the laboratory, participants were placed behind a computer and informed that they would take part in several unrelated experiments. First, participants were asked to recall a recent incident in which they felt offended. The instructions did not specify whether they should think of conflicts with either

close others or non-close others, so that participants could bring to mind a relatively extended range of offenders. Participants were asked to briefly describe what happened.

As an indicator of relationship value, participants specified on a one-item scale how committed they felt toward the offender (Burnette et al., 2012). Scores ranged from 1 (*very low*) to 7 (*very high*), $M = 5.39$, $SD = 1.59$. We also assessed offense severity (two items, "The conflict was very intense", and "I felt really hurt by the offense", $\alpha = .89$), and how long ago (*in days*) the offense took place.

After they completed the questionnaires, participants proceeded with the Stroop task (Stroop, 1935) - our measure of executive control capacity. In this task color words are presented in either congruent or incongruent colored fonts, for example, the word "red" printed in red or in green. The task involves attending to a relevant feature (color of the word) while ignoring a highly related, but non-indicative feature (content of the word). Participants were instructed to indicate with the mouse the font color of each word as quickly and accurately as possible (Fennis & Janssen, 2010). To create our measure of executive control, we first coded incorrect responses as missing. Next, we recoded latencies longer than 2500ms as 2500ms. Four extreme values were recoded into the mean plus 2.5 SD. In- or excluding these values did not change the results. Our measure of executive control was the mean latency on the incongruent trials, controlling for the mean latency on the congruent trials. On these critical incongruent trials, performance depends on the ability to suppress the natural tendency to read the word. Thus, a lower score indicates a better performance on the task and thus a higher level of executive control.

Following the Stroop task, forgiveness was measured with the Dutch version of the Transgression-Related Interpersonal Motivation Scale (TRIM; McCullough et al., 1998) consisting of 12 items rated on a 7-point Likert scale from 1 (*completely disagree*) to 7 (*completely agree*). We used the mean score of all items as our indicator of forgiveness (e.g., "I have given up my hurt and resentment," and "I want him/her to get what he/she deserves" recoded; $M = 4.69$, $SD = 1.41$, $\alpha = .92$) (for a similar approach, see Exline, Baumeister, Bushman, Campbell, & Finkel, 2004). Finally, participants were debriefed and thanked for their participation.

Results

A hierarchical regression analysis was run in which forgiveness was regressed onto relationship value (i.e., commitment), executive control (i.e., mean latency on incongruent trials), and the interaction between the centered scores of relationship value and executive control while controlling for mean latency on congruent trials, offense severity and the time since it took place.

Replicating previous findings, both relationship value, $\beta = .22$, $t(127) = 2.98$, $p = .003$, and executive control were significantly related to forgiveness tendencies, $\beta = -.30$, $t(127) = -2.81$, $p = .006$. More importantly, the analysis yielded a significant interaction between relationship value and executive control, $\beta = -.15$, $t(127) = -1.98$, $p = .050$ (Figure 3.1).

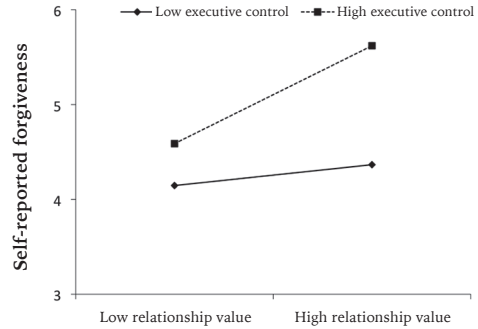

Figure 3.1. The effect of number of false alarms on level of forgiveness (± *SD* from the respective means) for offenders varying in perceived friendship.

Simple slope tests (Aiken & West, 1991) revealed that, among individuals with a higher level of executive control (+ 1 SD), relationship value was significantly associated with forgiveness tendencies, $\beta = .37$, $t(127) = 3.28$, $p = .001$. However, among individuals with a lower level of executive control (- 1 *SD*), relationship value was not associated with forgiveness tendencies, $\beta = .08$, $t(127) = .81$, $p = .419$. These findings support the reasoning that relationship value, as a motivating force, is not sufficient to forgive an offender. Actually forgiving the offender (or at least experiencing forgiveness as indicated by our self-report measure) also requires the capacity to do so, that is, relatively high executive control.

We also looked at the interaction from a different perspective, by examining the association between executive control and forgiveness at different levels of perceived relationship value. In particular, when relationship value was high (+ 1 *SD*), executive control significantly predicted forgiveness, $\beta = -.44$, $t(127) = -3.55$, $p = .001$, but executive control was not related with forgiveness when relationship value was low (- 1 *SD*), $\beta = -.15$, $t(127) = -1.17$, $p = .243$.[5]

These findings are consistent with the prediction that the association between executive control and forgiveness is most strongly pronounced when relationship value is high, providing further evidence that both relationship value *and* executive control are required for forgiveness.

[5] We also analyzed the data without controlling for perceived severity or time since the offense and found no appreciable change in any results reported in this chapter.

STUDY 3.2

Study 3.2 was conducted to replicate and extend the findings of Study 3.1. First, Study 3.2 addresses a potential limitation of the previous study. In Study 3.1, the executive control task was measured immediately after recalling the incident and completion of the forgiveness questionnaires. Possibly, participants' executive control resources may have been depleted after these tasks, which could have affected performance on the executive control task (e.g., Baumeister, Bratslavsky, Muraven, & Tice, 1998). In Study 3.2, executive control was measured at least one hour after recalling the incident, which arguably reduces this problem.

Second, we wanted to extend the findings to a different age group. To date, research on forgiveness has focused mainly on adults (in fact, mainly on undergraduate students), while it has received little attention in research with children (e.g., Flanagan, Vanden Hoek, Ranter, & Reich, 2012; Peets, Hodges, & Salmivalli, 2013). Yet, the ability to forgive offending peers may have important developmental implications. For example, although there is little direct evidence on the role of forgiveness in peer relationships, research suggests that hostility and retaliatory responses to interpersonal conflict are strongly associated with less healthy peer relationships, less peer acceptance, and more behavioral problems (e.g., Hubbard et al., 2002; Rose & Asher, 1999; Troop-Gordon & Asher, 2005).

An interesting and important question is whether findings on the correlates of forgiveness can be generalized to children. There is some evidence demonstrating that, like adults, children are more strongly motivated to use forgiving strategies when they are provoked by a friend than by a non-friend (Peets et al., 2013). These findings suggest that forgiveness among children also depends strongly on the nature of the relationship, and the value a child ascribes to the relationship. We argue that the fundamental mechanisms concerning interpersonal forgiveness should – in theory – also be applicable to children's forgiveness. When children are hurt by a valuable relationship partner (i.e., a friend), they may be especially inclined to forgive the other child (Peets et al., 2013). However, to respond in a forgiving manner, we argue that children should also have the capacity (i.e., executive control) to inhibit their often automatically arising retaliatory responses.

Thus, in Study 3.2, we examined whether children's forgiveness depends on the value of the relationship (operationalized in terms of level of friendship) in interaction with the child's level of executive control.

Method

Participants

Participants were 77 children (39 girls; M_{age} = 10.21, SD_{age} = 1.02) from four elementary schools in the Netherlands. We did not include the data of participants who did not recall an incident (n = 3). Parents had given permission for participation of their child. Children received a small gift in exchange for their voluntary participation.

Procedure

Participants were first asked to bring to mind an incident in which they felt hurt by one of their classmates by means of the following instructions:

"In a moment you will get some questions about something hurtful one of your classmates did to you. For example, a classmate did something unkind to you, which made you feel really angry or sad. Please think back to such a situation you had with one of your classmates."

We allowed participants to come up with offending classmates that were either friends or non-friends. Participants were asked to briefly describe what happened. An example description was: "Last month I was not invited to the birthday party of one of my best friends." Relationship value was operationalized by asking participants to what extent they were friends with that specific classmate at the time of the offense from 1 (*not at all*) to 7 (*very much*); M = 3.46, SD = 2.08. Participants also indicated offense severity (one item, "How severe do you think the offense was?" from 1 (*not at all*) to 7 (*very much*), M = 5.04, SD = 1.84), and time since the conflict, from 1 (*today or yesterday*) to 4 (*more than a year ago*).

Forgiveness was measured with a modified version of the TRIM (McCullough et al., 1998). Example items were: "When I think back to what my classmate did to me, I would like to take revenge", and "When I think back to what my classmate did to me, I find it difficult to act in a friendly way toward him/her" (recoded). Participants indicated their answers on a 7-point scale (1 = *completely disagree*, 7 = *completely agree*). We used 9 of the original 12 items; three items were deleted because they could not be easily made understandable for children. The mean of all items was our indicator of forgiveness (M = 4.46, SD = 1.41, α = .86) (Exline et al., 2004).

After at least one hour (children had a break in between), we continued with the second part of the assessment. In groups of four, participants completed a computerized go/no-go task, as an indicator of inhibition capacity (e.g., Eigsti et al., 2006). In a go/no-go task, participants are taught to respond to a specific stimulus on the computer screen, but once in a while, this learned prepotent response must

be inhibited when another stimulus appears (a 'no-go' trial). Participants were required to watch a sequential presentation of letters and to respond to a target letter by pressing a button (based on Bezdjian, Baker, Isabel Lozano, & Raine, 2009). The presentation began with a fixation cross in the middle of the screen. A single letter (P or R) was presented for 800 ms with an inter-stimulus interval of 1,500 ms. Prior to the task, participants completed a brief practice session to ensure they understood the task. The participant was directed how to complete the practice phase (*"press the space bar when you see the letter P (or R), don't press the button when you see the letter R (or P)"*). Participants were randomly assigned to one of the two conditions (P-go or R-go). In the first condition (P-Go), participants were asked to press the spacebar in response to the target letter P and withhold their response to the non-target letter R. In the second, reversal condition (R-Go), participants had to press the spacebar when seeing the letter R and withhold their response to the non-target letter P. The task consisted of 120 trials total. The ratio of targets to non-targets was 90:30. Task performance was assessed by calculating the false alarms (i.e., responding incorrectly to the NoGo letter; e.g., Schulz et al., 2007). A lower score on this measure represents less incorrect responses to NoGo trials – thus a higher level of executive control (M = 2.51, SD = 2.18). Finally, participants were debriefed and thanked for their participation.

Results

A hierarchical regression analysis was run in which forgiveness was regressed onto relationship value (i.e., friendship), executive control (i.e., number of false alarms), and the interaction between their centered values, while controlling for offense severity and time since the offense.

There was a main effect of perceived relationship value, β = .31, $t(69)$ = 3.29, p = .002, and a marginally significant main effect of executive control, β = -.16, $t(69)$ = -1.69, p = .096. Importantly, we found a marginally significant interaction between relationship value and executive control, β = -.19, $t(69)$ = -1.93, p = .057 (Figure 3.2). A simple slope test (Aiken & West, 1991) revealed that for children with a higher level of executive control (+ 1 *SD*), relationship value was related to forgiveness, β = .50, $t(69)$ = 3.90, p < .001. In contrast, for children with a relatively low level of executive control (- 1 *SD*), relationship value was not associated with forgiveness, β = .13, $t(69)$ = .88, p = .380.

As in Study 3.1, we also tested the simple slopes separately for high (+ 1 *SD*) versus low (- 1 *SD*) relationship value. Executive control was significantly positively associated with forgiveness when perceived relationship value was high, β = -.35, $t(69)$ = -2.56, p = .013, whereas executive control was unrelated to forgiveness scores when perceived relationship value was low, β = .03, $t(69)$ = .19, p = .852.

To summarize, Study 3.2 again supported the prediction that relationship value and executive control *in combination* are associated with higher interpersonal forgiveness.

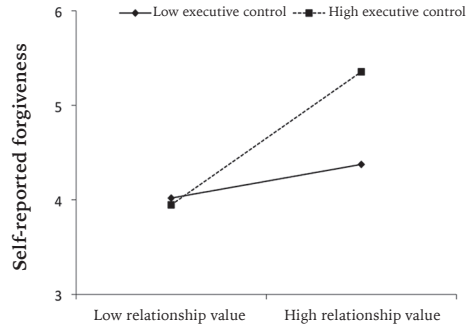

Figure 3.2. The effect of number of false alarms on level of forgiveness (± *SD* from the respective means) for offenders varying in perceived friendship.

STUDY 3.3

In Study 3.3 we extended Studies 3.1 and 3.2 in several ways. First, in Studies 3.1 and 3.2 relationship value was measured after the recall of the offense, which may have resulted in reporting lower perceived relationship value for the recall of unforgiven offenses. Therefore, in Study 3.3, we experimentally induced whether participants recalled a past offense by a friend (high relationship value) or a non-friend (low relationship value). Second, Study 3.3 added a behavioral measure of forgiveness. Studies 3.1 and 3.2 measured self-reported forgiveness, which may differ from actual forgiving behavior. After participants brought to mind an incident in which they were offended, they were asked to divide lottery tickets between the offending classmate and themselves. We reasoned that the more tickets participants would give to the offender, the more they had forgiven the offender. Third, to examine whether the effects generalize to other inhibitions tasks, we used another task to measure executive control in Study 3.3.

Method

Participants and design

Participants were 145 children (82 girls) aged 9 to 11 years (M_{age} = 10.24, SD_{age} = .48) from five elementary schools in the Netherlands. Nine additional participants completed all elements of Study 3.3 but were excluded from the analyses: six yielded Flanker data that were impossible to score because of interruptions during data collection; three were excluded because they did not understand the Flanker task. Participants were randomly assigned to the friend (n = 64) or non-friend condition (n = 81). Parents had given permission to participate. Children received a small gift for their voluntary participation.

Procedure

We experimentally varied relationship value by asking participants to recall a hurtful offense by a classmate who was a friend or a non-friend. Participants were instructed to describe the offense. As a manipulation check, we asked them to rate to what extent they were friends with the offending classmate at the time of the offense from 1 (*not at all*) to 7 (*very much*). As in Study 3.2, participants then rated the severity of the offense (M = 4.84, SD = 1.64), and the time since it occurred (from 1, *today or yesterday*, to 4, *more than a year ago*). We also measured self-reported forgiveness with the TRIM as in Study 3.2 (M = 5.07, SD = 1.43, α = .86).

After a break, participants' executive control capacities were measured with a Flanker task (Eriksen & Schultz, 1979), a widely used indicator of inhibition capacity. We used the arrow version of the Flanker task developed by Ridderinkhof, Van der Molen, Band, and Bashore (1997). Target stimuli were arrows pointing right or left, presented at the center of the computer screen. The direction of the target arrow indicated whether the participant had to press the left or right response button. The target stimulus was surrounded by two distractors (arrows) on both sides (left and right). There were two trial types: congruent and incongruent. In a congruent trial the target arrow was flanked by arrows pointing in the same direction as the target; in incongruent trials the flankers pointed in the opposite direction. The task began with a 20-trial practice block (10 of each type), followed by two 50-trial experimental blocks (100 in total, 50 of each trial type). Trial types were presented randomly within each block. A warning cross (500 ms) preceded the stimulus (800 ms). After the stimulus, the screen turned blank for 1500 ms.

We ran preliminary analyses on the Flanker task data to determine the most reliable way to score the responses. Based on this, we recoded two extreme values into the mean minus 2.5 SD. In- or excluding these values did not change the

pattern of results. As suggested by Davidson, Amso, Anderson, and Diamond (2006), we focused on response accuracy rather than reaction times because children tend to respond more impulsively than adults with less modulation of reaction times (Diamond, Barnett, Thomas, & Munro, 2007). Also, because we used an 800 ms time frame, participants had to respond rather quickly. Hence, our measure of executive control was the number of correct responses to incongruent trials, controlling for the number of correct responses on congruent trials. The higher this score, the less difficulty the participant had with the flanking targets, and thus a higher level of executive control.

After the Flanker task, participants were asked to think back to the offending peer from the beginning of the study. They received 10 lottery tickets with which one could win a movie voucher and were asked to divide them between themselves and the offending peer. The number of tickets given to the offending peer was our behavioral indicator of forgiveness (M = 3.03, SD = 1.56).

Results

As a manipulation check, an ANOVA revealed a significant effect of the friend condition on perceived friendship, $F(1, 143) = 102.02$, $p < .001$, $\eta_p^2 = .42$. Participants reported higher friendship with a friend (M = 5.13, SD = 1.51) than with a non-friend (M = 2.42, SD = 1.67).

To test our hypothesis that relationship value (i.e., strength of friendship) interacts with executive control in facilitating *forgiving behavior*, the number of lottery tickets given to the offender was regressed onto relationship value (dummy coded: friend = .5, non-friend = -.5), executive control (i.e., number of correct responses to incongruent trials), and the interaction between their centered scores, while controlling for number of correct responses to congruent trials, perceived severity of the offense, and time since the offense.

We found a significant effect of relationship value, β = .18, $t(138) = 2.23$, p = .027, indicating a stronger forgiving response toward friends than to non-friends, and a significant effect of executive control, β = .20, $t(138) = 2.11$, p = .038, indicating more forgiveness for children with higher levels of executive control. The analysis also yielded a marginally significant interaction between relationship value and executive control, β = .14, $t(138) = 1.74$, p = .085 (Figure 3.3).[6] Tests of the effect of friend condition on forgiving behavior at high (+ 1 SD) and low (- 1 SD) levels of executive control (Aiken & West, 1991) yielded a significant effect of the friend condition at high levels of executive control, β = .33, $t(138) = 2.77$, p = .006.

[6] Notably, in Study 3.3, we performed the same analyses but controlled for the average reaction times on both congruent and incongruent trials. This analysis again revealed a marginally significant interaction between relationship value and executive control on forgiveness behavior, p = .096.

In contrast, at low levels of executive control, the association between friend condition and forgiveness was not significant, β = .04, $t(138) = .34$, $p = .738$. Thus, children were more likely to forgive a friend than a non-friend, however, this effect only occurred among children with relatively high levels of executive control, again suggesting that executive control is required in addition to high relationship value to promote forgiveness.

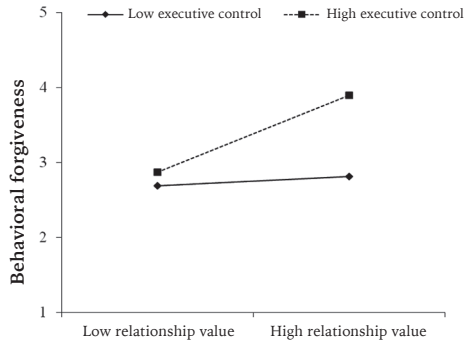

Figure 3.3. The effect of varying levels of Flanker Task performance (± *SD* from the respective means) on level of forgiveness as a function of friendship condition.

We also examined whether executive control was associated with forgiveness toward friends, but not toward non-friends. Consistent with Studies 3.1 and 3.2, executive control was associated with forgiving behavior in the friend condition, β = .32, $t(59) = 2.26$, $p = .027$, but not in the non-friend condition, β = .09, $t(76) = .66$, $p = .512$.

As a validation of the behavioral forgiveness measure, the number of tickets given to the offending peer correlated with the self-report forgiveness questionnaire (i.e., the TRIM), $r = .26$, $p = .002$. However, the analysis with the TRIM as dependent variable only revealed a significant main effect of relationship value (friendship), β = .34, $t(138) = 5.39$, $p < .001$, but no effect of executive control, β = -.13, $t(138) = -1.60$, $p = .111$, nor an interaction between relationship value and executive control, β = -.01, $t(138) = -.20$, $p = .843$.

Thus, in addition to the findings of Studies 3.1 and 3.2, the findings of Study 3.3 partly supported our hypothesis that relationship value and executive control jointly promote forgiveness. However, in Study 3.3 we found this effect only on the behavioral indicator of forgiveness, not on the self-report forgiveness measure.

STUDY 3.4

In all of our studies thus far, executive control was measured after participants recalled the offenses. This temporal order allows for several alternative interpretations, such as a possible depletion effect. Although Studies 3.2 and 3.3 sought to address this issue by measuring executive control only after a break, we further addressed this issue in Study 3.4. Specifically, in Study 3.4, we assessed executive control capacity before participants recalled a hurtful incident. In addition, as in Study 3.3, relationship value was manipulated between participants, such that participants either recalled a hurtful incident by someone with whom they feel strongly committed to (high relationship value) or weakly committed to (low relationship value). In Study 3.4, we again used a sample of undergraduate students.

Method

Participants

A sample of 116 undergraduate students (101 women; $M_{age} = 22.11$, $SD_{age} = 4.51$) participated in the study for course credit or money. We excluded the data of participants who did not recall an offense ($n = 7$), or were color blind ($n = 1$). Participants were randomly assigned to the close ($n = 56$) or non-close condition ($n = 60$).

Procedure

The procedure of Study 3.4 was similar to Study 3.1. However, this time, we first assessed individual differences in executive control capacity with a Stroop task. We recoded three extreme values into the mean + 2.5 *SD*. Our measure of executive control again was the time participants took to correctly respond to incongruent color words, controlling for response times on congruent trials. Thus, a lower score indicates a better performance on the task, and thus a higher level of executive control.

Next, participants completed several unrelated tasks for about 10 minutes. Participants then recalled, and briefly described, an incident in the past when they felt offended. As in Study 3.3, we manipulated level of perceived relationship value by instructing participants to think about a person to whom they felt either strong commitment (i.e., high commitment condition) or to whom they felt only weak commitment (i.e., low commitment condition). As a manipulation check of perceived relationship value, participants completed an eight-item questionnaire

measuring their level of commitment to the person they brought to mind (Rusbult, Martz, & Agnew, 1998; e.g., I feel psychologically attached to the other") on a 7-point Likert scale from 1 (*completely disagree*) to 7 (*completely agree*). In addition, we used the pictorial one-item Inclusion of Other in the Self scale (IOS; Aron, Aron, & Smollan, 1992). Participants also reported offense severity (three items, e.g., "I felt really hurt by the offense", α = .87), and how long ago (*in days*) the offense took place.

Forgiveness was measured with a modified Dutch version of the Family Forgiveness Questionnaire (FFQ; Maio, Thomas, Fincham, & Carnelley, 2008) consisting of 8 items rated on a 7-point Likert scale from 1 (*completely disagree*) to 7 (*completely agree*). We used the mean of the 8 items as our indicator of forgiveness (e.g., If I think back to what he/she did to me, "I see him/her as positively as before", and "I can easily forgive him/her"), $M = 4.38$, $SD = 1.52$, α = .92.

Results

Our manipulation of perceived relationship value was successful: scores on the relationship commitment measure were significantly higher in the high commitment condition ($M = 5.81$, $SD = 1.18$), than in the low commitment condition ($M = 1.80$, $SD = .72$), $F(1, 115) = 497.33$, $p < .001$, $\eta_p^2 = .81$. In addition, we found similar effects on the IOS measure (high commitment, $M = 4.34$, $SD = 1.69$, versus low commitment, $M = 1.45$, $SD = .83$, $F(1, 115) = 139.64$, $p < .001$, $\eta_p^2 = .55$).

Next, we ran a regression analysis in which forgiveness was regressed onto relationship value (dummy coded), executive control (i.e., mean latency on incongruent trials), and the interaction between the centered scores of relationship value and executive control, while controlling for mean latency on congruent trials, perceived severity and time since the offense. This analysis yielded a significant effect of relationship value, β = .63, $t(109) = 8.68$, $p < .001$, but not of executive control, $p = .148$. More importantly, the analysis revealed a marginally significant interaction effect between relationship value and executive control, β = -.12, $t(109) = -1.76$, $p = .081$ (Figure 3.4).

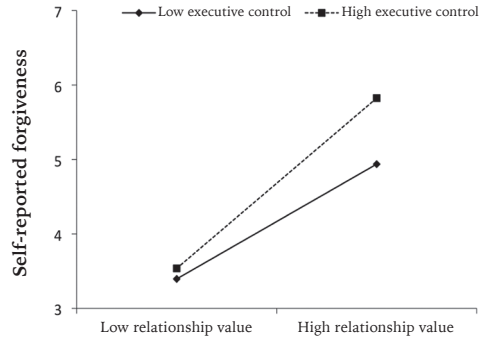

Figure 3.4. The effect of varying levels of Stroop Task performance (± *SD* from the respective means) on level of forgiveness as a function of relationship commitment condition.

Simple slope tests (Aiken & West, 1991) revealed that, among individuals with a high level of executive control (+ 1 *SD*), relationship value was significantly associated with forgiveness, β = .75, $t(109) = 7.55$, $p < .001$. Although still significant, among individuals with lower levels of executive control (- 1 *SD*), relationship value was less strongly associated with forgiveness, β = .51, $t(109) = 5.07$, $p < .001$.

We also examined whether executive control was associated with forgiveness in the high commitment condition, but not in the low commitment condition. In line with the results of Studies 3.1 through 3.3, executive control was marginally significantly associated with forgiveness in the high commitment condition, β = -.41, $t(51) = -1.99$, $p = .052$. In the low commitment condition, the effect of executive control on forgiveness was non-significant, β = .001, $t(55) = .003$, $p = .998$.

In sum, the findings of Study 3.4 generally confirm the results of Studies 3.1 to 3.3, revealing that relationship value and executive control *in combination* facilitate forgiveness.

Meta-Analytic Summary

Across the studies, we found fairly consistent results. Tests of the simple effects were – except for the self-reported measure in Study 3.3 – all in the predicted direction. However, the interaction between relationship value and executive control, although consistent in four of the five cases, did not always achieve statistical significance. To estimate the reliability of both moderator effects across the four studies for the five dependent variables (including the non-significant interaction on the TRIM from Study 3.3), we performed meta-analyses using the Stouffer combined test (e.g., Finkel, Campbell, Buffardi, Kumashiro, & Rusbult, 2009; Luchies et al., 2010; Rosenthal, 1978).

Method

We conducted three separate meta-analyses; for the simple effects of relationship value on forgiveness when executive control was high (+ 1 *SD*) and low (- 1 *SD*), for the simple effects of executive control on forgiveness when relationship value was high (+ 1 *SD* in Studies 3.1 and 3.2, and high commitment conditions in Studies 3.3 and 3.4) and low (-1 *SD* in Studies 3.1 and 3.2, and low commitment conditions in Studies 3.3 and 3.4), and for the interaction effect between relationship value and executive control. We standardized all predictor and outcome variables in all analyses. To calculate each meta-analytic beta, we weighted the beta for each effect from each study by the inverse of its variance. To calculate each meta-analytic standard error, we took the square root of the reciprocal of the sum of the weights. To conduct hypothesis tests on our meta-analytic effects, we divided the meta-analytic beta by the meta-analytic standard error, which yielded a *z* statistic (see also Finkel et al., 2009).

Results

These analyses revealed strong support for our hypotheses: the interaction effect between relationship value and executive control was significant across studies, $\beta = .14$, $z = 2.92$, $p = .004$. For individuals with relatively high levels of executive control (+ 1 *SD*), relationship value was positively related to forgiveness across studies ($\beta = .44$, $z = 6.38$, $p < .001$). For individuals with relatively low levels of executive control (- 1 *SD*), the effect of relationship value on forgiveness across studies was less strong, albeit still significant ($\beta = .16$, $z = 2.39$, $p = .017$; see Figure 3.5A). In highly valued relationships (+ 1 *SD*), executive control was positively related to forgiveness across studies ($\beta = .23$, $z = 3.90$, $p < .001$), whereas in less valued relationships (- 1 *SD*), this effect was not significant ($\beta = .02$, $z = .33$, $p = .741$; see Figure 3.5B).

Thus, despite some inconsistencies across studies, these analyses revealed that the association between relationship value and forgiveness is stronger for individuals relatively high as compared to low in executive control. In addition, executive control is positively associated with forgiveness, but only in highly valued relationships.

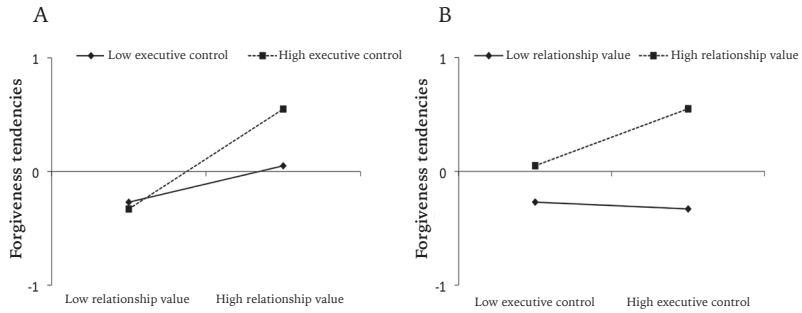

Figure 3.5. Meta-analytic results predicting forgiveness tendencies by perceived relationship value and executive control, with a moderating role of executive control (A) or relationship value (B) across Studies 3.1-3.4.

GENERAL DISCUSSION

In four studies, we examined whether relationship value and executive control operate together to promote forgiveness. Using different executive control tasks, different indicators of relationship value, both self-report and behavioral indices of forgiveness, and different age groups, our findings revealed that high relationship value is associated with higher levels of forgiveness, especially for individuals relatively high in executive control capacity. Although relationship value has been identified as a central determinant of forgiveness (Fehr, Gelfand, & Nag, 2010), the present findings demonstrate that the association between relationship value and forgiveness varies considerably as a function of the victim's level of executive control. In addition, we found that executive control is associated with forgiveness only in highly valued relationships, but is relatively irrelevant to forgiveness in the absence of high relationship value. Together, these results strongly suggest that in order to forgive an offender, both relationship value *and* executive control are required.

How do relationship value and executive control work together in promoting forgiveness? We argue that executive control works in the service of relationship value: only if individuals value the relationship with the offender they recruit executive control to actually transform impulses to retaliate into a forgiving response, and the recruitment of executive control depends on the availability of executive control capacity. This interpretation is consistent with dual-process models that stress the interactive role of motivation and capacity in overriding impulsive responding (e.g., Chaiken & Trope, 1999; Smith & DeCoster, 2000). In this case, both a motivational factor (relationship value) and a capacity factor (executive

control) are required to inhibit a retaliatory response that is often automatically induced by an offense. Thus, to forgive, people require not just the motivation to do so; they also need the capacity to get rid of their retaliatory impulses.

The present research contributes to the broader literature on the role of self-regulation in relationship functioning. Previous research suggests that good self-regulation helps people to resolve conflicts in a more forgiving manner (Finkel & Campbell, 2001; Pronk et al., 2010); reduces aggression in relationships (Slotter et al., 2012); helps partners to stay faithful (Pronk, Karremans, & Wigboldus, 2011); and promotes the willingness to make sacrifices for one's partner (Pronk & Karremans, 2014; but see Righetti, Finkenauer, & Finkel, 2013). The present findings have important implications for understanding how relationship-maintenance responses emerge when interaction partners have to inhibit impulsive (self-interested) responses, and instead to respond in ways that benefit the relationship or interaction partner (i.e., transformation of motivation; Kelley & Thibaut, 1978). For example, Slotter et al. (2012) recently demonstrated that individuals high in dispositional tendencies to retaliate inhibit aggressive responses to a provoking partner to the extent that they are more strongly committed to that person. Slotter et al. concluded that, apparently, relationship commitment has an executive influence on aggressive responses. The current findings suggest a somewhat different interpretation: relationship commitment (i.e., value) in and of itself does not have an executive influence, but relationship commitment sets into motion the executive mechanisms (i.e., executive control) that regulate relationship-destructive responses.

We wish to address three additional issues the present findings raise in light of previous findings. First, unlike the present studies that focused on behavioral measures of executive control, previous studies examined the link between self-report measures of self-regulatory capacity and forgiveness. For example, Balliet et al. (2011) and Finkel and Campbell (2001) examined the role of self-reported trait self-control in forgiveness. In general, their findings revealed that self-reported self-regulation ability promoted forgiveness, irrespective of motivational factors (e.g., relationship commitment; Finkel & Campbell, 2001). Although these findings may seem inconsistent with the present findings, arguably the self-report measure used in their research not only assesses self-regulatory *ability* but also more broadly people's *motivation* to plan, monitor goal-progress, and take future consequences of one's actions into account (Balliet et al., 2011). Schmeichel and Zell (2007) demonstrated that trait self-control is related to different behavioral indicators of self-control, even though they acknowledge that such self-control measures may also assess the motivation to engage in self-regulatory effort to some extent. Clearly, future work should examine exactly how these different indicators of self-regulatory control (self-report measures vs. cognitive ability tasks) are related to each other, and to forgiveness and pro-relationship responses more broadly.

Second, previous research has suggested that high relationship value is more or less automatically associated with forgiveness. Karremans and Aarts (2007) demonstrated that priming people with close others lead to stronger *inclinations* to forgive. In these studies, participants indicated their willingness to forgive hypothetical offenses. Such findings suggest that relationship value is strongly associated with the *willingness* and inclination to forgive. The present studies, in which we used self-reported and behavioral indices of forgiveness regarding past offenses, suggest that *actual* forgiveness regarding a real offense, experienced in the past, does not occur automatically, but requires executive control. Put differently, although high relationship value (e.g., closeness) may automatically induce the willingness to forgive, executive control is required to translate such intentions into actual forgiveness. Nevertheless, an interesting issue for future studies is to identify the factors that determine when forgiveness requires executive control resources, and when it may occur relatively automatically – for example, when relationship maintenance goals are highly salient, or when the offense is less severe (Stanton & Finkel, 2012).

Third, in the current research we operationalized executive control as the ability to *inhibit* impulsive responding, using tasks that were specifically designed to measure inhibitory control. Importantly, besides inhibition, two other key executive functions that have been distinguished are task switching and updating (for a detailed discussion, see Miyake et al., 2000). Notwithstanding the differences between them, it has been argued that all three components involve the capacity to focus attention on goal-relevant information and processes, while inhibiting irrelevant ones (Smith & Jonides, 1999). Yet, an interesting avenue for future research is to examine whether relationship value interacts with the other components of executive control; each component of executive control may facilitate forgiveness, either through different processes (e.g., task switching may help a person to divert attention to long-term relationship goals in the wake of an offense), or they may facilitate forgiveness because they all underlie the capacity to inhibit goal-irrelevant information, feelings, or thoughts.

The present research is one of the first to examine forgiveness and its determinants among children. Interestingly, the consistent findings between the undergraduate students and children samples provide good evidence that results from research in adults, or often more specifically undergraduate students, can be generalized to populations outside of university labs (Baumeister, Vohs, & Funder, 2007). Moreover, the current findings help to more fully understand when and why children forgive their peers, and have interesting implications for possible interventions among children (but also adults) to successfully deal with interpersonal hurt. Interventions to improve executive control (see Diamond et al., 2007) may be effective in increasing forgiving capacities (although we are aware of the fact that unconditional forgiveness of any interpersonal offense is unlikely to be

beneficial; e.g., Luchies et al., 2010; McNulty, 2008). In addition, the present studies may be relevant to the developmental trajectory of forgiveness. Specifically, previous studies have demonstrated that the capacity for executive control tends to increase from early to late adolescence (e.g., Davidson et al., 2006). An interesting question for future studies is whether the level of forgiveness parallels increases in executive control over the course of development. Still, the present work suggests that in early adolescence, when executive control capacity is relatively "underdeveloped" yet, individual differences in executive control are positively associated with a child's forgiving abilities, just as it does in later adolescence, and adulthood.

The current studies had some limitations. First, one may argue that individuals with relatively high levels of executive control simply have weaker urges to retaliate when offended by a strong commitment other. Although we cannot be sure whether or not this is the case based on the present findings, we did not find a significant correlation between perceived severity of the offense and executive control capacity in all four studies (all *p*'s > .434). This suggests that the association between executive control and forgiveness cannot be explained by differences in perceived severity of the offense (indeed, controlling for severity did not alter the findings), making it less likely that participants with high versus low executive control did experience different levels of the 'urge to retaliate' (cf. Finkel et al., 2012).

Second, we took an individual differences approach, and did not manipulate levels of executive control. Although this limits the possibility to draw causal conclusions, the important advantage of measuring executive control with individual difference performance tasks is that they directly tap into the executive functions (inhibition) of interest – for example as evidenced by results from neurophysiological studies demonstrating that performance on such tasks is correlated with activation in brain areas involved in emotional and behavioral regulation (e.g., Lieberman, 2007). In contrast, there is some debate about whether manipulations that are meant to restrain or deplete executive control (or self-regulation) indeed merely affect cognitive regulatory resources, or whether they perhaps particularly affect other things such as task motivation (e.g., Hagger, Wood, Stiff, & Chatzisarantis, 2010; Job, Dweck, & Walton, 2010).

Finally, the present research did not systematically examine the temporal sequence of relationship value and forgiveness. In all four studies, relationship value was measured *after* the offense had taken place, and the instructions may have left open some ambiguity for participants as to whether they should recall an offense to whom they are highly (vs. weakly) committed to *currently* or at the time the offense took place, which may render some alternative explanations plausible. For example, one may argue that a lack of forgiveness may bias individuals in their memory of the level of commitment or friendship at the time of the offense (Finkel et al., 2002; McCullough et al., 1998). Similarly, the lack of forgiveness may cause

a person to psychologically distance him or herself from the offender, reducing the perceived value of the relationship partner. Ideally, in future research such possible feedback loops between relationship value and forgiveness are addressed in prospective studies, in which relationship value (but also executive control) are measured before an offense takes place, and relationship value is measured again after the offense.

Conclusion

To conclude, whereas relationship value has been put forward as one of the most important predictors of interpersonal forgiveness, the current findings demonstrate that relationship value only tells part of the story. In order to forgive an offender, people should also have a certain level of executive control capacity. This helps to explain why people sometimes fail to forgive despite strong motivation to do so. These findings provide a more complete picture of why, when, and how people forgive their offenders, and more broadly, help to better understand relationship protection and maintenance.

Chapter 4

Forgiveness and The Peer Group

This chapter is based on:
Van der Wal, R. C., Karremans, J. C., & Cillessen, A. H. N. (2015). Interpersonal forgiveness in late childhood: Associations with popularity. *Submitted for publication*.

Abstract

IT is well established that children's well-being, and their affective and behavioral responses, are strongly linked to their status in the peer group. The current research addressed the question whether and how a child's *popular* social status in the classroom is related to the tendency to forgive offending peers. We ran two studies among 9-13 year-old children who completed a sociometric instrument and self-reported and behavioral measures of forgiveness. In agreement with the current literature, picturing popularity as a mixture of prosocial and antisocial traits and behaviors, the results yielded no simple correlations between popularity and forgiveness. In fact, we found evidence for two moderators; the gender of the offended child and the relational context. More specifically, popularity and forgiveness were positively associated for boys, but not for girls. This effect was further qualified by the relational context, such that popular boys tended to forgive both their friends and their non-friends, whereas relatively low popular boys were more willing to forgive their friends and less so their non-friends. Together, these findings demonstrate that the way in which boys respond to their offending peers is associated with their social standing in the peer group.

Elementary schools are not only a place where children develop their cognitive abilities in such areas as mathematics and language. Equally important is the development of social skills and learning how to interact and get along with peers – perhaps in particular when things go wrong. Children may gossip about each other, laugh at each other, or even exclude one another. Although an initial impulsive and felt-justified response to interpersonal offenses is to do harm in return (e.g., Rose & Asher, 1999; Troop-Gordon & Asher, 2005), it is likely that a retaliatory response increases rather than decreases the chance of being hurt again.

An alternative response is to inhibit impulsive retaliatory responses and instead react in a *forgiving* manner. Forgiveness can be defined as a prosocial change toward a perceived transgressor (e.g., McCullough, Pargament, & Thoresen, 2000), such that negative thoughts, feelings, and behaviors toward the transgressor are transformed into positive ones (e.g., McCullough et al., 1998). Several recent studies have looked at the motivational underpinnings of forgiveness among children, demonstrating that children are more inclined to forgive hurtful acts by friends than by non-friends (Peets, Hodges, & Salmivalli, 2013; see also Chapters 2 and 3 of this dissertation). Generally, however, the precursors of forgiveness among children – when and why children forgive their peers – have received only little empirical attention in developmental psychology (e.g., Denham, Neal, Wilson, Pickering, & Boyatzis, 2005; Flanagan, Vanden Hoek, Ranter, & Reich, 2012; Peets et al., 2013). Yet, being able to respond in a forgiving manner to negative peer experiences helps a child restore and reestablish valuable peer relationships, and may also decrease feelings of distress (Chapter 2). Indeed, research suggests that the ability to forgive is positively associated with a child's psychological well-being (e.g., Flanagan et al., 2012; Chapter 2).

The current research addresses the questions whether and how a child's social standing in the classroom is related to the tendency to forgive offending peers. A child's social status in the peer group is a central construct in childhood peer relationships. It is well established that children's well-being, and their affective and behavioral responses, are strongly linked to their status in the peer group (e.g., Schwartz & Gorman, 2011; Schwartz, Gorman, Duong, & Nakamoto, 2008). For example, and as will be discussed in more detail below, a child's social status is an indicator of both prosocial and antisocial behavioral characteristics at that specific time, and at a later age (e.g., Cillessen & Mayeux, 2007). Given the fundamental impact of peer group status on children, an interesting topic to explore is how the child's group level status is associated with his or her forgiving tendencies toward offending peers. Specifically, the current research explores the role of *popularity* in children's forgiving tendencies.

Forgiveness and Popularity

In late childhood, a distinction emerges between two types of peer group status, 'being liked' and 'being popular', and the distinction between them increases further across adolescence (Cillessen & Borch, 2006; Cillessen & Mayeux, 2004). The extent to which a child is liked or disliked is usually defined in terms of acceptance and rejection (Cillessen, Schwartz, & Mayeux, 2011), whereas the extent to which a child is seen as popular is mostly defined as a reputational measure of status, visibility, and impact in the peer group (also referred to as *perceived* popularity; Cillessen & Mayeux, 2004; Cillessen et al., 2011). Being popular is a strongly valued and salient construct in the social lives of children in late childhood, since, for example, popular children are seen by their peers as having frequent interactions, and as being competent, talented, and socially well-connected (e.g., LaFontanta & Cillessen, 2002).

How may having a popular social status in the peer group be associated with forgiveness? To understand this possible association, it is helpful to consider what is known about the role of popularity in children's prosocial tendencies more generally. In the extant developmental literature, popularity is often viewed as a 'mixed blessing', as it is associated with a set of both positive and negative correlates (e.g., Cillessen & Rose, 2005). For example, being popular in the peer group is, especially in late childhood (4-6 graders; LaFontana & Cillessen, 2002), associated with higher levels of aggression, in particular social or relational aggression (i.e., aggression that is manipulative or excluding; e.g., Cillessen & Mayeux, 2004; Cillessen & Rose, 2005; LaFontana & Cillessen, 1998; Rodkin & Roisman, 2010; Rose, Swenson, & Waller, 2004; Sandstrom & Cillessen, 2006). At the same time, several studies have demonstrated that being popular also includes prosocial skills. For example, popularity has been linked to cooperation, helpfulness, kindness, and trustworthiness (e.g., De Bruyn & Cillessen, 2006; LaFontana & Cillessen, 2002; Xie, Li, Boucher, Hutchins, & Cairns, 2006; but see Sandstrom & Cillessen, 2006), particularly if the popular child is also high in social acceptance. Similarly, Andreou (2006) found a positive association between popularity and peer-rated social intelligence (i.e., social awareness, social skills, and social information processing).

This picture is further complicated by differences between boys and girls. There is ample empirical evidence that the association between popularity and social acceptance is stronger for boys than for girls, suggesting that particularly for boys popularity is related to better social skills (e.g., Cillessen & Mayeux, 2004; LaFontana & Cillessen, 2002; Prinstein & Cillessen, 2003). In fact, popularity seems to damage girls' likeability in later adolescence (Cillessen & Mayeux, 2004; Mayeux, Sandstrom, & Cillessen, 2008). This has been explained by the fact that girls have more aspirations of becoming popular (e.g., Eder, 1985), which could lay the groundwork for girls who achieve 'popularity' to become disliked by other

girls as a result of jealousy. Moreover, there is some evidence indicating that popular girls tend to use more relational aggression than popular boys (Cillessen & Mayeux, 2004; but see Prinstein & Cillessen, 2003; Rose et al., 2004).

While it is difficult to theorize about the question how popularity may affect forgiveness in particular, the findings discussed above provide some clues for understanding how popularity may be associated with forgiveness. Basically, these previous findings suggest that there are two possible alternative predictions. Considering the positive link between popularity and aggression, popularity may be negatively associated with forgiveness. Indeed, several studies have demonstrated that children who behave in a more hostile and aggressive way are less likely to forgive offending others (e.g., Flanagan et al., 2012; Peets et al., 2013). We refer to this as the *popularity-antisocial hypothesis*. In contrast, studies on the role of popularity in social intelligence and prosocial behavior suggest an alternative prediction. As noted, research indicates that there is a positive relationship between popularity and social skills, and this association is stronger for boys than for girls (Cillessen & Mayeux, 2004; LaFontana & Cillessen, 2002; Lease, Kennedy, & Axelrod, 2002). Thus, assuming that forgiveness requires well developed social skills to preserve valuable relationships even when hurt (e.g., McCullough & Hoyt, 1999; Chapter 3), popularity and forgiveness actually may be positively associated, and perhaps especially for boys. We refer to this as the *popularity-prosocial hypothesis*.

STUDY 4.1

In Study 4.1, we explored the association between forgiveness and popularity among children in grade 4 to 6 of elementary school, and examined whether this association differed for boys and girls. Popularity was measured using peer nominations (Cillessen & Mayeux, 2004; Lansu & Cillessen, 2012). Also, we measured social preference using peer nominations, which allowed us to assess the specificity of the effects for popularity. To measure forgiveness tendencies, we first asked children to recall a past offense by one of their classmates. Level of forgiveness was measured with both a self-report and a behavioral measure.

Method

Participants

Participants were children from grade 4 to 6 from 13 different elementary schools in the Netherlands. The data were collected in two cohorts with five months in between each data collection (cohort 1: $n = 126$; cohort 2: $n = 201$). In agreement with pro-

cedures of the schools, we used passive parental consent, which means that parents could indicate if they did not want their child to participate in the study. A total of 327 parents agreed that their child could participate (participation rate 88.9%). We excluded children who did not complete the questionnaire because they were absent (n = 8), could not think of a hurtful incident (n = 10), did not understand one of the measures (n = 7), or had missing data on one of the main variables (n = 6). A total sample of n = 296 children completed all elements of the study (133 boys and 163 girls). Participants ranged in age from 9 to 13 years (M_{age} = 10.46 years, SD_{age} = .61). Participants received a small gift in exchange for their voluntary participation.

Procedure

Participants were tested in their own classroom for one hour. We started with a sociometric instrument to assess participants' popularity and preference status. Next, participants were asked to bring to mind a past incident in which they felt hurt by one of their classmates (for a similar procedure, see Chapters 2 and 3). Participants were asked to briefly describe what happened. An example description was: "*A few days ago I heard my best friend gossiping about me.*" Participants were then asked to what extent they were friends with that specific classmate at the time of the offense from 1 (*not at all*) to 7 (*very much*), M = 3.44, SD = 2.08, and how severe they thought the offense was from 1 (*not severe*) to 7 (*very severe*), M = 4.97, SD = 1.62.

We proceeded by measuring participants' self-reported forgiveness level. In cohort 2, we also included a behavioral measure of forgiveness. Finally, participants were thoroughly debriefed and thanked for their participation.[7,8]

[7] In the second cohort, we instructed half of the children to think back to a hurtful incident by a classmate that is their friend, and the other half to think of an incident by a classmate that is not their friend. Participants were asked to indicate to what extent they were friends with the classmate at the time of the offense from 1 (*not at all*) to 7 (*very much*). To increase power, we merged the two data files together, and used the perceived friendship measure (i.e., manipulation check in cohort 2) as our measure of perceived friendship in subsequent analyses. Importantly, adding time of data collection as a factor to the analyses did not change the pattern of results.

[8] This study was part of a larger data collection, in which we also assessed several other sociometric nominations (e.g., bully, victim, relational aggression), children's executive control capacities, and narcissistic tendencies (see Chapter 3).

Measures

Social status. To assess social status of the children in the classroom, participants were asked to name classroom peers who were most popular, least popular, they liked most, and liked least. Unlimited nominations were used, capped at a maximum of six peers for each question. Both same- and other-sex choices were allowed but no self-nominations. To guarantee confidentiality of the nominations, participants entered code numbers instead of names for each question. A final score for *popularity* was calculated as the difference between the standardized most popular and least popular scores received and standardizing the resulting difference scores within classrooms. A final score for *preference* was calculated as the difference between the standardized liked most and liked least scores received, again standardizing the resulting difference scores within classrooms (for a similar approach, see Lansu & Cillessen, 2012).

Self-reported forgiveness. Self-reported level of forgiveness was measured with a modified version of the Transgression-Related Interpersonal Motivation Scale (TRIM; McCullough et al., 1998, see also Chapter 3). Example items were: when I think back to what my classmate did to me, "I would like to take revenge", and "I find it difficult to act in a friendly way toward him/her" (recoded). Participants indicated their answers on a 7-point scale (1 = *totally disagree*, 7 = *totally agree*). As in previous research assessing children's self-reported forgiveness levels (Chapter 3), we used 9 of the original 12 items. The mean of the 9 items was our indicator of forgiveness; M = 4.96, SD = 1.41, α = .87.

Behavioral forgiveness. At least one hour after they had finished the questionnaire, participants' forgiveness behavior was tested individually in a separate room at school. They were asked to bring to mind the offense they recalled in the first part of the study. Participants then received 10 lottery tickets with which a movie ticket could be won, and were asked to divide them between themselves and the offending peer. We reasoned that the number of tickets given to the offender reflected the child's level of forgiveness toward the offender, and thus served as our indicator of forgiving behavior (M = 3.08, SD = 1.54; see also Chapter 3). The number of tickets given to the offender correlated positively with self-reported forgiveness of the offender, r = .24, p = .001.

Results

We examined the correlations between the variables for boys and girls separately. As can be seen in Table 4.1, self-reported level of forgiveness was significantly correlated with popularity and preference for boys, but not for girls. These simple correlations are in line with the *popularity-prosocial hypothesis*: higher levels of

popularity were associated with more forgiveness, but only for boys. Notably, partial analyses demonstrated that the results did not change when controlling for perceived severity of the offense.

Table 4.1
Intercorrelations of Main Variables

	Preference		Popularity		Self-reported Forgiveness	
	boys	*girls*	*boys*	*girls*	*boys*	*girls*
Preference	-	-				
Popularity	.40**	.50**	-	-		
Self-reported Forgiveness	.28*	.05	.30**	-.02	-	-
Behavioral Forgiveness	.12	-.07	.18†	.04	.21†	.28*

Note.† $p < .10$, * $p < .05$, ** $p < .001$.

The Moderating Role of Gender

Regression analyses confirmed that, at least with regard to self-reported forgiveness, the association between popularity and forgiveness indeed significantly differed between boys and girls. That is, we ran a regression analysis in which self-reported forgiveness was regressed on the centered score of popularity, gender (effect coded; 1 = girls, -1 = boys), and the interaction between popularity centered and gender, controlling for the centered score of preference. We found a main effect of popularity, $\beta = .51$, $t(291) = 2.96$, $p = .003$, a main effect of preference, $\beta = .14$, $t(291) = 2.09$, $p = .038$, but no main effect of gender, $p = .11$. Most importantly, we found a significant interaction effect between popularity and gender, $\beta = -.45$, $t(291) = -2.60$, $p = .010$, such that having a popular social status in the classroom was related to more self-reported forgiveness for boys, but not for girls. For behavioral forgiveness, we found no significant main or interaction effects, p's $> .247$.

Exploratory Analyses

It is important to note that additional exploratory analyses indicated that the association between popularity and boys' forgiveness level was further moderated by relational context. That is, adding perceived friendship as a predictor to the regression analysis revealed a significant interaction effect between popularity and perceived friendship on self-reported level of forgiveness, $\beta = -.18$, $t(128) = -2.13$, $p = .035$ (in addition to a significant main effect of perceived friendship, $\beta = .34$, $t(128) = 4.05$, $p < .001$, and a marginally significant main effect of preference, $\beta = .15$, $t(128) = 1.78$, $p = .077$). As can be seen in Table 4.2, for low perceived friendship (-1 *SD*), popularity was significantly associated with self-reported forgiveness, $\beta = .31$, $t(128) = 2.93$, $p = .004$. However, this association was not significant when perceived friendship was high (+1 *SD*), $p = .729$. Exploring the interaction pattern differently, the association between perceived friendship and self-reported forgiveness was significant when popularity was low (- 1 *SD*), $\beta = .49$, $t(128) = 3.96$, $p < .001$, and less so, although still significant, when popularity was high (+ 1 *SD*), $\beta = .19$, $t(128) = 1.99$, $p = .048$ (see Figure 4.1).

Table 4.2
Beta Values of the Interactions Between Popularity and Perceived Friendship, and Beta Values of the Effects of Popularity on Self-reported and Behavioral Forgiveness for Low Perceived Friendship (- 1 SD) and High Perceived Friendship (+1 SD)

	Popularity X Friendship		Popularity Low Friendship		Popularity High Friendship	
	boys	*girls*	*boys*	*girls*	*boys*	*girls*
Self-reported Forgiveness	-.18*	.03	.31*	-.12	-.05	-.05
Behavioral Forgiveness	-.27*	.07	.35*	.05	-.19	.20

Note. * $p < .05$.

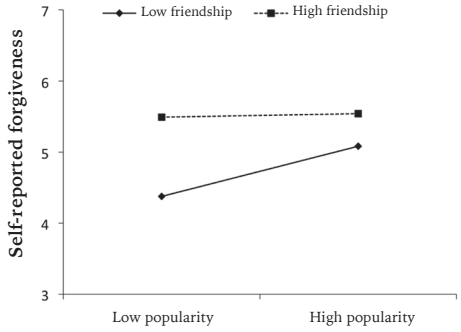

Figure 4.1. The effect of varying levels of popularity toward friends and non-friends on boys' self-reported forgiveness.

Although initially we found no significant association between popularity and behavioral forgiveness, when adding perceived friendship to the regression equation we again found a significant interaction between popularity and perceived friendship on boys' forgiveness behavior, $\beta = -.27$ $t(79) = -2.41$, $p = .018$ (Figure 4.2). Inspection of the simple main effects revealed that there was a significant association between popularity and forgiveness behavior when perceived friendship was low (- 1 *SD*), $\beta = .35$ $t(79) = -2.50$, $p = .014$, but not when perceived friendship was high (+ 1 *SD*), $p = .297$ (Table 4.2). Looking at the interaction pattern differently, when popularity was low (- 1 *SD*), perceived friendship and behavioral forgiveness were significantly associated, $\beta = .37$ $t(79) = 2.35$, $p = .021$. When popularity was high (+ 1 *SD*), perceived friendship and forgiveness were not significantly associated, $p = .470$.

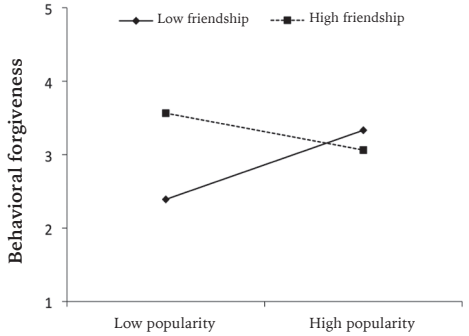

Figure 4.2. The effect of varying levels of popularity toward friends and non-friends on boys' behavioral forgiveness.

Girls' forgiveness. On the *self-report* measure of forgiveness, we only found a main effect of perceived friendship, $\beta = .22$, $t(158) = 2.87$, $p = .005$, but no main effect of popularity, $p = .355$, preference, $p = .323$, or an interaction effect between popularity and perceived friendship, $p = .692$. For the *behavioral* measure of forgiveness, we did not find any significant main or interaction effects, *p*'s > .132.

Discussion

To summarize, the results of Study 4.1 demonstrate that forgiveness and popularity are significantly associated for boys, but not for girls, partly supporting the *popularity-prosocial hypothesis*. Although not anticipated, exploratory analyses revealed that this association is affected by the strength of the relationship between the peer

that has been offended and the offender, such that a boy's popularity status in the classroom is a stronger predictor of forgiveness between non-friends than friends. In addition, for low-popular boys perceived friendship plays a larger role in whether or not to forgive an offending peer than for popular boys. Together, these findings suggest that both the gender of the offended child and the extent to which a child is befriended with the offending peer are important in understanding when a child's popular status is related to forgiveness.

Interestingly, the finding that low-popular boys tend to make a stronger distinction between forgiveness toward friends versus non-friends seems to be in line with a recent study by Poorthuis, Thomaes, Denissen, van Aken, and Orobio de Castro (2012), who demonstrated that friendship quality is positively associated with prosocial tendencies, but only among low-popular children. Popular children, on the other hand, may have other compensating characteristics that make them attractive for peers to be friends with. Thus, for low-popular children it seems to be more important to restore friendships than for popular children, which may help to explain why low-popular children seem to be more likely to forgive hurtful incidents by friends than non-friends.

STUDY 4.2

In Study 4.2, we further addressed this issue and manipulated the relational context in which the offense occurred. Specifically, we asked children to think back to and describe a hurtful incident by a friend (friend condition) or a non-friend (non-friend condition). Subsequently, we measured forgiveness again using both a self-report and a behavioral measure.

Method

Participants

Participants were children from grade 4 to 6 from six different elementary schools in the Netherlands. The data were collected in two cohorts with four months in between (cohort 1: $n = 200$; cohort 2: $n = 82$). Parents had given permission for participation of their child. A total of 335 parents agreed that their child could participate (participation rate 96.5 %). We excluded children who did not complete the questionnaire because they were absent ($n = 5$) or due to time constraints ($n = 10$), or because they could not bring to mind a hurtful situation ($n = 26$). An additional 10 participants were excluded because they did not follow the instructions (e.g., worked together with a classmate instead of on their own; $n = 7$),

or had missing data on two of the main variables (n = 5). We ended up with a final sample of n = 282 children, ranging in age from 9 to 13 years old (153 girls; M_{age} = 10.40, SD_{age} = .87). Participants were randomly assigned to the friend (n = 139) or non-friend condition (n = 143). Participants received a small gift in exchange for their voluntary participation.

Procedure

We started with a sociometric assessment. Following the same procedure as in Study 4.1, we assessed children's popularity and preference status in the classroom. Next, participants were asked to recall an incident in which they felt offended by one of their classmates that was a friend (friend condition) or not a friend (non-friend condition). Participants were again asked to briefly describe what happened. Example descriptions were: "*He told me that I was fat, and I already feel pretty insecure about my weight*" and "*She laughed at me because I was stuttering*". Children then completed the manipulation check, asking them to what extent they were friends with the offending classmate at the time of the offense from 1 (*not at all*) to 7 (*very much*). In addition, they indicated how severe the offense was, from 1 (*not severe*) to 7 (*very severe*), M = 5.10, SD = 1.66, and how long ago the offense took place (1 = *today or yesterday*, 2 = *a week ago*, 3 = *a month ago*, and 4 = *more than a year ago*). Participants then indicated their self-reported forgiveness level. In addition, and after a short break in which participants completed a connect-the-dots puzzle, we measured participants' behavioral forgiveness tendencies. Finally, participants were debriefed and thanked for their participation.

Measures

Social status. Participants were asked to nominate a maximum of six classroom peers who are most popular, least popular, they liked most, and liked least. Both same- and other-sex choices were allowed but no self-nominations. *Popularity* was calculated as the difference between the standardized most popular and least popular scores received and standardizing the resulting difference scores within classrooms. *Preference* was calculated as the difference between the standardized liked most and liked least scores received, again standardizing the resulting difference scores within classrooms.

Self-reported forgiveness. We measured self-reported level of forgiveness this time with a modified Dutch version of a forgiveness scale developed by Maio, Thomas, Fincham, and Carnelley (2008) (see also Chapter 2). This measure consisted of six items rated on a 7-point Likert scale from 1 (*completely disagree*) to 7 (*completely agree*), with items such as, If I think back to what my classmate did to me, "I see my classmate as positively as before", and "I can easily forgive my classmate". The mean of the six items was our indicator of forgiveness; M = 4.36, SD = 1.70, Cronbach's α = .89.

Behavioral forgiveness. To measure participants' behavioral forgiveness level, they were pointed toward a nicely decorated gift in front of the classroom, and were told that the peer with the highest number of credits would win the gift. Participants were asked to recall once more the offending classmate and to indicate how many credits they would like to give him or her (with a minimum of 1 and a maximum of 10 credits). The number of credits participants gave to the offending classmate was our behavioral indicator of forgiveness, M = 5.09, SD = 2.92, range 1-10. This behavioral measure correlated with the self-report measure of forgiveness, r = .52, p < .001.[9]

Results

Manipulation Check

We first checked whether the friendship manipulation caused the intended effects on perceived level of friendship. An ANOVA revealed that participants in the friend condition indeed reported greater perceived friendship (M = 4.23, SD = 1.97) than participants in the non-friend condition (M = 2.16, SD = 1.56), $F(1, 280)$ = 96.00, p < .001, η_p^2 = .26.

The Moderating Role of Relational Context

As we manipulated level of perceived friendship in Study 4.2, testing for the moderating role of gender would not make sense without taking into account the friendship manipulation. Therefore, we immediately proceeded by examining the moderating role of relational context for boys and girls separately. First, self-reported level of forgiveness was regressed onto the centered popularity score, the effect-coded friendship condition score (friend condition = 1, non-friend condition = -1), and the interaction between popularity centered and friendship condition, controlling for the centered score of preference. The same analysis was performed on the behavioral measure of forgiveness.

[9] For some unknown reason, five children did not complete the behavioral measure and were excluded for the analyses.

Boys' forgiveness. We found a main effect of friendship condition on *self-reported* level of forgiveness, β = .53, $t(124) = 7.64$, $p < .001$, indicating more forgiveness to friends than to non-friends. Also, we again found a main effect of preference on self-reported forgiveness, β = .31, $t(124) = 4.00$, $p < .001$, such that male participants who were more preferred by their classmates tended to report more forgiveness. We did not find a main effect of popularity, $p = .184$. Most importantly, we found a significant interaction between popularity and friendship condition, β = -.16, $t(124) = -2.20$, $p = .029$ (see Figure 4.3). As shown in Table 4.3, unlike in Study 4.1, this time popularity was not significantly associated with forgiveness in the non-friend condition, $p = .751$, but it was in the friend condition, β = -.29, $t(124) = -2.08$, $p = .042$. Examining the interaction effect differently, and in line with the results of Study 4.1, friendship condition was a stronger predictor of forgiveness when popularity was low (- 1 *SD*), β = .69, $t(124) = 6.77$, $p < .001$, than when popularity was high (+ 1 *SD*), β = .38, $t(124) = 3.81$, $p < .001$.

Table 4.3

Beta Values of the Interactions Between Popularity and Perceived Friendship, and Beta Values of the Effects of Popularity on Self-reported and Behavioral Forgiveness for Friends and Non-Friends

	Popularity X Friendship		Popularity Non-Friends		Popularity Friends	
	boys	*girls*	*boys*	*girls*	*boys*	*girls*
Self-reported Forgiveness	-.16*	-.11	.04	-.02	-.30*	-.21
Behavioral Forgiveness	-.02	-.02	-.02	.01	-.15	-.06

Note. * $p < .05$.

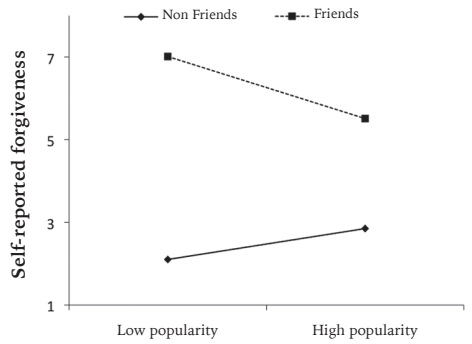

Figure 4.3. The effect of varying levels of popularity toward friends and non-friends on boys' self-reported forgiveness.

On the *behavioral* measure of forgiveness we found a main effect of friendship condition, β = .49, $t(122) = 6.28$, $p < .001$, and a marginally significant main effect of preference, β = .15, $t(122) = 1.76$, $p = .081$, but no main effect of popularity, $p = .509$, nor a significant interaction effect between popularity and friendship condition, $p = .790$.

Girls' forgiveness. On the *self-report* measure of forgiveness, we found a main effect of friendship condition, β = .30, $t(148) = 4.09$, $p < .001$, and a main effect of preference, β = .34, $t(148) = 4.23$, $p < .001$. We did not find a significant main effect of popularity, $p = .158$, nor a significant interaction effect between popularity and friendship, $p = .135$.

On the behavioral measure of forgiveness, we again found a main effect of friendship condition, β = .30, $t(145) = 3.74$, $p < .001$. We did not find a main effect of popularity, $p = .811$, preference, $p = .487$, nor an interaction effect between popularity and friendship, $p = .794$.[10]

Discussion

Together, the results of Study 4.2 demonstrate again that, at least on a self-report measure, boys who are less popular in the classroom tend to make a stronger distinction between forgiving friends versus non-friends, as opposed to boys who are more popular. As in Study 4.1, we did not find this effect for girls.

GENERAL DISCUSSION

Previous research findings picture popularity as a mixture of prosocial and antisocial traits and behaviors (e.g., Cillessen et al., 2011; Newcomb, Bukowski, & Pattee, 1993). The goal of the present studies was to examine whether and how popularity is related to forgiveness tendencies in late childhood. In line with the *popularity-prosocial hypothesis*, we found evidence that popularity was positively associated with forgiveness. However, this effect depended on two factors, namely the gender of the offended child and the relational context. More specifically, in two studies, we found consistent evidence for a positive association between popularity and

[10] In both studies, we also checked whether preference interacted with perceived friendship on forgiveness. That is, for boys and girls separately, we regressed self-reported and behavioral forgiveness onto the centered score of preference, the centered (Study 4.1) or dummy-coded (Study 4.2) score of perceived friendship, and the interaction between the centered preference score and perceived friendship score, controlling for the centered score of popularity. These analyses did not reveal any consistent findings.

forgiveness for boys, but not for girls. This effect was further qualified by the relational context, such that perceived friendship was a stronger predictor of forgiveness for low-popular boys than for popular boys. Together, these findings demonstrate that the way in which boys respond to their offending peers is associated with their social standing in the peer group.

There are several explanations that may help to understand the current findings. First of all, low-popular boys were more willing to forgive their friends than their non-friends. In fact, on the behavioral measure in Study 4.1 and the self-report measure in Study 4.2, there even seems to be a trend toward more forgiveness toward friends than their popular fellow classmates. In support of this, Poorthuis et al. (2012) demonstrated that friendship quality was positively associated with prosocial tendencies, but only among low-popular children. The authors explained this by suggesting that low-popular children have less to offer (i.e., they have less high-quality friendships, are less socially skilled, powerful, and visible), thus it is more important for them to stay close with the friends they have. In contrast, popular children are able to restore and maintain friendships even when they show relatively low levels of prosocial behavior, because being friends with a popular peer already has a lot of benefits so that they will require relatively little in return (Cillessen et al., 2011; Dijkstra, Berger, & Lindenberg, 2011). Similarly, a study found that the association between being relationally aggressive and having troubling relationships was especially strong for low-popular children (Rose et al., 2004). Together, these findings demonstrate that it is more important to reestablish friendships for low-popular children than for popular children. As such, this may be a reason why low-popular children distinguish more between friends and non-friends when it comes to forgiving others.

Secondly, it is well established that the popular child in a group is often both a strong individual and a key component of a group (Cillessen et al., 2011). Popular children serve the group by promoting basic goals, such as cohesion and harmony (Bukowski, 2011). This focus on group coherence may help to explain why popular children, as compared to low-popular children, did not distinguish between forgiving friends and non-friends. Specifically, one possibility is that popular children achieved their popular status partly because they forgive both their classmates they have a strong relationship with as well as other classmates. Perhaps, popular children have acquired their status because they focus strongly on group cohesion, and hence are more strongly motivated to set aside the hurt other group members did to them than low-popular children. Notably, this pattern is also observed in many nonhuman species, where status is associated with the ability to form alliances with members across the whole hierarchy of the group (e.g., Byrne & Whiten, 1988; De Waal, 2000).

Last, the present findings supporting the *popularity-prosocial hypothesis*, are in line with previous studies demonstrating a positive association between peer-rated

social intelligence and popularity (Andreou, 2006; see also LaFontana & Cillessen, 1998). In addition, Aikins and Litwack (2011) suggested that popular children may act prosocially because they are particularly good at keeping their own emotions in check while exhibiting the emotion that is most beneficial in a given context. Somewhat related, previous studies on the relationship between forgiveness and status among adults have demonstrated that powerful adults also tend to be more likely to act prosocially than less powerful others (e.g., Côté et al., 2011; Gordon & Chen, 2013; Karremans & Smith, 2010), but only when the prosocial act is in line with their initial goal. Specifically, Karremans and Smith (2010) demonstrated that high power adults are more forgiving particularly because they can move beyond their momentary hurt feelings and focus on their long-term goal of maintaining the relationship with the offender. Together, this may suggest that for popular boys, as for high power adults, forgiveness may reflect a modulated and goal-driven strategy to reach goals, that is, to achieve or maintain status in the group. Future research exploring popular children's motivations to forgive offending classmates may further address this issue.

In the present studies we only found associations between popularity and forgiveness for boys and not for girls. One explanation for this may be that, in late childhood, being popular in a group seems to be more strongly associated with peer acceptance for boys than for girls (e.g., LaFontana & Cillessen, 2002), and this difference becomes stronger with age (e.g., Mayeux et al., 2008). In fact, some studies even suggest that girls obtain popularity by acting in a more strategic manner by, for example, using relational aggression techniques (e.g., Cillessen & Mayeux, 2004; Prinstein & Cillessen, 2003). Based on this, it is perhaps not so surprising we did not find an association between popularity and forgiveness for girls.

The current studies were conducted among children aged 9 to 13 years old, who were in their final years of elementary school. One may wonder whether the present findings are restricted to this age group, or may be generalized to other developmental stages. Previous studies indicated that the positive association between popularity and social acceptance for boys seems to attenuate, or even disappear, throughout adolescence (Cillessen & Mayeux, 2004). This may suggest that the positive association between popularity and forgiveness for boys is especially salient in late childhood. This is an important issue for future longitudinal studies.

We should note some limitations. First, although the two studies yielded consistent results, there were also some inconsistencies. In Study 4.2, we replicated the findings of Study 4.1 on the self-report index of forgiveness, but we did not replicate it with the behavioral measure of forgiveness. Indeed, it is important for future research to further replicate and extend the present findings.

Second, given the correlational nature of the present studies, an important question remains whether a boy's forgiving responses lead to a higher status,

whether a high status leads to more forgiving responses, or both. Importantly, the assumption underlying much of the research on popularity is that social standing is the results of children's skills and abilities. From that perspective, popularity may be viewed as a byproduct of a boy's ability to forgive his peers. In support of this, some studies indicate that individuals do not attain status by bullying and intimidating others, but by acting generously and altruistically toward others (Anderson & Kilduff, 2009). For example, status seekers signal their commitment to the group by providing more help than they received (Flynn, Reagans, Amanatullah, & Ames, 2006). An alternative pathway is one in which peer experiences drive the development of specific social skills. Popular children have many positive experiences in the peer group that allow them to build and practice their behavioral competencies. These youth are likely to interact with other skilled peers, who further model and reinforce efficient interpersonal functioning (see also Aikins & Litwack, 2011). Longitudinal studies beginning in early childhood are needed to uncover trajectories of behaviors that contribute to the development of popular status in late childhood.

Last, in the present studies we did not take into account the popularity level of the target peer. Yet, popular peers not only influence others but are also susceptible to the influence from others (e.g., Lansu, Cillessen, & Karremans, 2012). For instance, a recent study by Peets and Hodges (2014) revealed that adolescents who behaved aggressively toward liked others were perceived as most popular, suggesting that popularity is more likely to be ascribed to those adolescents who target other high status peers. Future research taking into account status levels of both peers involved in the conflict should test whether acting in a forgiving manner toward a popular or preferred peer is also associated with higher popularity.

Conclusion

Children spend much of their days in the company of their peers. Not surprisingly, their lives are strongly affected by their status in the peer group, including the degree to which they are seen as being popular. The current research highlights that, for boys, popular social status is related to how they respond to offending peers, and as such obtains a richer view on how social status is related to the way children restore and maintain close bonds with others.

Chapter 5

Forgiveness and The Parents

This chapter is based on:
Van der Wal, R. C., Karremans, J. C., & Cillessen, A. H. N. (2015). Toward a better understanding of forgiveness among children: Do parents play a role? *Submitted for publication.*

Abstract

RECENT studies revealed that the extent to which a child is befriended with an offending peer is an important predictor of the child's propensity to forgive. Taking a more distal perspective, in the current research we explored the role of the parents in children's forgiving tendencies toward offending peers. Specifically, we examined whether parents' advice to their child how to respond to offenses, and parents' level of forgiveness vis-à-vis each other, are associated with children's forgiveness level toward peers, above and beyond any effects of the child's relationship with the offender. Results of two studies revealed that stronger perceived friendship was associated with more forgiveness, independent of parental forgiving tendencies. There was little evidence that parents' advice or their forgiving tendencies were associated with children's forgiveness toward peers. Children's *perceptions* of parental forgiving tendencies were associated with their forgiving tendencies toward an offending peer, however, these perceptions were unrelated to parents' reports of their forgiving tendencies. The broader implications of these findings for understanding children's forgiveness are discussed.

Offenses and conflict are inevitable aspects of children's lives. Children may gossip behind each other's back, exclude one another, or divulge a secret to others that should not be divulged. When children are offended, their initial impulsive response often is to retaliate and take revenge (e.g., Troop-Gordon & Asher, 2005; cf. McCullough, Fincham, & Tsang, 2003). However, when offenses generally are managed this way, children may have difficulty maintaining relationships with others, and it may also negatively affect their social and emotional development more broadly (e.g., Rose & Asher, 1999). In contrast, being able to resolve conflict in a more *forgiving* manner may have important benefits. For instance, forgiveness – defined as a prosocial change toward an offender (e.g., McCullough et al., 1998) – has been associated with increased psychological well-being, better friendships, and even enhanced physical health (e.g., see Chapter 2; Flanagan, Vanden Hoek, Ranter, & Reich, 2012; Laursen, Finkelstein, & Betts, 2001; Witvliet, Ludwig, & Vander Laan, 2001).

Yet, the precursors of forgiveness among children have received relatively little attention in developmental psychology, although research is emerging. The extant studies on this topic suggest that a key factor in understanding children's forgiving tendencies is the relational context. Children are more inclined to forgive peers they feel close and committed to, or have a strong friendship bond with (Peets, Hodges, & Salmivalli, 2013; see Chapter 3). In a similar way, research on forgiveness in adults has demonstrated that the level of forgiveness is strongly determined by the strength and value of the relationship bond with the offender (e.g., Finkel, Rusbult, Kumashiro, & Hannon, 2002; Karremans & Aarts, 2007; Karremans et al., 2011; Paleari, Regalia, & Fincham, 2005). Often, such findings have been explained in terms of evolutionary principles. Human survival and reproductive success (i.e., fitness) for an important part depend on the ability to form and maintain close relationship bonds with others (e.g., Dunbar, 1993; De Waal, 2000). The ability to forgive may have evolved as an adaptive psychological mechanism to deal with the inevitable interpersonal offenses, and to preserve valuable relationship bonds in light of such offenses (e.g., Burnette, McCullough, Van Tongeren, & Davis, 2012; De Waal & Pokorny, 2005; McCullough, 2008). According to this view, whether an offended child responds in a forgiving manner depends for an important part on the nature of the relationship with the offender.

Does this mean that children's forgiving tendencies are, *predominantly*, a function of the relationship bond with the offender? Although the relationship bond is an important factor in predicting forgiving tendencies, there are strong inter-individual differences in children's propensity to forgive, even toward their closest friends (Peets et al., 2013; Chapter 2 and Chapter 3). One possible way of explaining such differences is to look more closely at their distal origins. In the current research we took this approach and examined the potential role of parents in children's propensity to forgive their peers. There has been some research on children's level

of forgiveness toward their parents and vice versa (Hoyt, Fincham, McCullough, & Davila, 2005; Maio, Thomas, Fincham, & Carnelley, 2008), however, whether and how parents may affect their children's forgiveness toward their peers has not been studied.

Based on previous literature there is reason to suspect that parents may play an important role in shaping children's forgiveness tendencies. Specifically, a large body of research has documented general associations between parents' anti- and prosocial behaviors and their children's corresponding behaviors (for reviews, see Buehler et al., 1997; Cummings & Davies, 1994). For instance, children of parents who cope with marital conflict in a destructive manner are more likely to show negative behaviors to others, such as physical and verbal aggression (e.g., Buehler & Gerard, 2002; Cummings & Davies, 2002; Fincham, Grych, & Osborne, 1994). At the same time, it has been demonstrated that the association between parents' positive interpersonal behaviors is associated with increases in children's prosocial behavior (Davidov & Grusec, 2006), empathy (Thompson & Meyer, 2007), and stable relationships at a later age (Ackerman et al., 2013). Based on such findings, it is likely that parents' forgiving tendencies are associated with their children's forgiving tendencies.

The possible transfer of parents' forgiveness tendencies to their children may occur in both direct and indirect ways, particularly by means of direct instruction and social learning. First, parents may give their children explicit advice on how to respond when hurt or offended. Theories of direct instruction (e.g., Vygotsky, 1978) propose that interpersonal behavioral patterns are acquired via direct instruction. For example, children who received warm parenting and were instructed to behave appropriately toward others were more skillful in their interactions with peers, whereas children who received harsher parenting tended to be more impulsive and less skillful in their interpersonal interactions (e.g., Capaldi & Clark, 1998; Simons, Lin, & Gordon, 1998). In a similar way, children who are instructed by their parents to forgive when offended (vs. to strike back) may also be more likely to forgive (vs. to retaliate against) an offending peer.

Second, in a more indirect manner and consistent with principles of social learning theory (e.g., Bandura, 1986; 2006), parents act as models and children may imitate their conflict resolution styles characterized by different levels of forgiving (e.g., Bandura & Walters, 1963). Maio and colleagues (2008) found some initial but indirect evidence for this notion. They found that parents who were generally more forgiving themselves perceived more forgiving tendencies in their children one year later. Although such parents' perceptions of their child may be biased, these findings suggest that parents' forgiving tendencies are associated with their children's forgiving tendencies. Through social learning, children with parents who are more forgiving vis-à-vis each other also may be more forgiving to peer provocations.

The Present Research

Considering that children's forgiving tendencies are positively associated with their ability to maintain stable friendships and their overall well-being (Chapter 2; Flanagan et al., 2012), it is important to further our understanding of the determinants of children's forgiving tendencies. The current research aimed to provide this insight by looking at both proximal factors (relational context) and distal factors (parents) that may contribute to forgiveness. As indicated, some scholars have argued that forgiveness can best be considered a 'relational phenomenon' as the level of forgiveness toward an offender is mainly determined by the value of the relationship between victim and offender (e.g., McCullough, Kurzban, & Tabak, 2013). Is this the whole story? We also know from previous research that, when taking into account the relationship bond between an offended child and his or her perpetrator, there still is quite some unexplained variance left when predicting children's forgiving tendencies (Chapter 2; Peets et al., 2013). In the present research, we examined the role of the relational context and the role of parents simultaneously. As in previous research, we predicted that perceived friendship with the offending peer would be positively associated with children's willingness to forgive. Additionally, we examined whether parents' instructions to children regarding how to respond to offenses and parents' level of forgiveness vis-à-vis each other would be associated with children's forgiving tendencies toward peers, and whether such effects would occur above and beyond any effects of children's relationship with the offender.

STUDY 5.1

In Study 5.1, we examined whether parents' instructions to their child (i.e., to forgive or retaliate) are related to children's forgiveness (i.e., direct instruction) and whether parents' forgiveness vis-à-vis each other is related to children's forgiveness (i.e., social learning). To examine the role of the relational context, children were asked to indicate their level of forgiveness regarding a specific offense by a friend or a non-friend. Subsequently, we assessed children's self-reported and behavioral forgiveness in response to the offense.

Method

Participants

Participants were children from Grade 5 and 6 from eight elementary schools in the Netherlands. Passive parental consent was obtained a week before the study was conducted. A total of 209 children agreed to participate in the study. We excluded children who did not complete the questionnaire because they were absent (n = 9) or because they could not recall a hurtful incident (n = 8). The final sample consisted of 192 children. Participants ranged in age from 9 to 12 years (M_{age} = 10.29 years, SD_{age} = .51; 104 girls), and were randomly assigned to the friend (n = 85) or non-friend condition (n = 107).

A sample of 97 parents completed the parent questionnaire (79 mothers, 18 fathers). Given the low number of fathers, the analyses of the parents data focused on the mothers (n = 79).[11] Because two children of the mothers who responded did not complete the forgiveness questionnaire, the final sample included 77 mothers and their children (33 boys and 44 girls; friend condition n = 37, non-friend condition n = 40).

Procedure

Children were tested in their own classroom for one hour. They were first asked to recall a hurtful incident by a classmate who was a friend or a non-friend with the following instructions: "*In a moment you will be asked about something hurtful a classmate did to you. For example, a classmate may have been unkind to you, which made you feel really angry or sad. Please think back to such a situation you had with one of your classmates who is "your friend"* (friend condition) or "*not your friend*" (non-friend condition)." Children were asked to briefly describe what happened. Example descriptions given by the children were: "*He once stole my shoes at swimming class*" or "*She said mean things about my little brother who has Down syndrome.*" Children then completed several measures. First, to check the friendship manipulation, children were asked to rate to what extent they were friends with the offending classmate at the time of the offense on a 7-point scale (1 = *not at all*, 7 = *very much*). Second, they rated the perceived severity of the offense (1 = *not severe*, 7 = *very severe*, M = 4.79, SD = 1.66). Third, they rated how long ago the offense took place, from 1 (*today or yesterday*) to 4 (*more than a year ago*), M = 2.82, SD = 1.06. These questions were followed by the self-reported forgiveness measure. Next, in a separate room, we tested children's forgiveness behavior individually by means of a lottery task. Finally, children were debriefed, and received a small gift in exchange for their voluntary participation.

Parents were instructed to complete the questionnaire alone in a quiet setting. The questionnaire was available online via Perseus software after the data collection with the children had taken place, and took about five minutes to complete. Parents were invited to participate through a letter via the children, and, if the teacher was willing to do this, by email. After the questionnaire was offline, we raffled four gift vouchers of €25 among the participating parents in each classroom.

Measurements

Children's self-reported forgiveness. Children's self-reported forgiveness was measured with a modified version of the Transgression-Related Interpersonal Motivation Scale (TRIM; McCullough et al., 1998). An example item is "When I think back to what my classmate did to me, I would like to take revenge" (recoded). Participants indicated their answers on a 7-point scale (1 = *completely disagree*, 7 = *completely agree*). We used 9 of the original 12 items; three items were deleted because they could not easily be made understandable for children (see also Chapter 3). The average of the 9 items was our indicator of forgiveness, M = 5.08, SD = 1.47, α = .89.

Children's behavioral forgiveness. Children were asked to think back again to the offending peer from the first part of the study. They then received 10 lottery tickets with which they could win a movie voucher and were asked to divide them between themselves and the offending peer. The number of tickets given to the offending peer was our indicator of forgiveness. This indicator correlated with the self-report measure of forgiveness, r = .30, p = .008. One child did not take part in the lottery task because she was absent.

Mother's advice. Mothers were asked to indicate on a 7-point scale (1 = *not at all*, 7 = *very much*) what kind of advice *in general* they would give their children when they are offended by a classmate. Notably, we did not specify whether the offending classmate was a friend or non-friend. Based on an often-used questionnaire to assess forgiveness tendencies among adults (TRIM; McCullough et al., 1998), we created a questionnaire with two subscales: three items measured the advice to forgive, e.g., "When my child is hurt by another child, I tell my child that he or she'd better try to make up with him/her"; three other items measured the advice to retaliate, e.g., "When my child is hurt by another child, I tell my child that he/she should make him/her pay". For the analysis, we recoded the items of the 'advice to retaliate' subscale and subsequently used the average of all six items as our measure of mother's advice, with a higher score indicating more forgiving

[11] Notably, we also performed the analyses with the fathers, but this did not change the results.

advice, M = 5.83, SD = .75, α = .76. One extremely low score was truncated to M - 2.5 SD. The pattern of results was the same with or without this score.

With two additional questions we asked mothers to rate *whether* they advise their child how to respond when they were offended (1 = *I never advise my child how to respond*, 7 = *I always advise my child how to respond*, M = 5.68, SD = 1.24), and *how often* they advise their child how to respond when offended (1 = *almost never*, 5 = *very often*, M = 2.82, SD = .70). Importantly, two t-tests indicated that whether and how often mothers give advice both significantly differs from zero, $t(77)$ = 40.16, $p < .001$, and $t(77)$ = 35.23, $p < .001$, respectively, indicating that mothers indeed advise their children on how to respond to peer provocations.

Mother's forgiveness. We used the Tendency to Forgive Scale (TTF; Brown, 2003) to assess mother's forgiving tendencies toward their partner. Example items are "I tend to get over it quickly when my partner hurts my feelings" and "When my partner wrongs me, my approach is just to forgive and forget." Each of the four items was answered on a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*), M = 4.79, SD = 1.01, α = .55. Mothers without a partner did not receive this questionnaire (n = 3).

Results

We first checked whether our manipulation of perceived friendship caused the intended effects. An ANOVA revealed that participants in the friend condition indeed indicated higher perceived friendship with the offending peer, (M = 5.11, SD = 1.76), than participants in the non-friend condition, (M = 2.13, SD = 1.67), $F(1, 75) = 58.33$, $p < .001$, $\eta_p^2 = .44$.

To examine whether children's forgiveness levels are driven by relational context (i.e., perceived friendship), mother's advice whether to forgive or retaliate, and mother's own forgiving tendencies toward her partner, we conducted a regression analysis in which the child's self-reported forgiveness was regressed onto the effect-coded friendship condition (friend = 1, non-friend = -1), the centered score for mother's advice, the centered score for mother's forgiveness toward her partner, the interaction between friendship condition and mother's advice, the interaction between friendship condition and mother's forgiveness, and the interaction between mother's advice and mother's forgiveness.

This analysis revealed a significant main effect of friendship condition, β = .50, $t(67) = 4.87$, $p < .001$, indicating more forgiveness toward friends than non-friends. Also, we found a marginally significant main effect of mother's advice, β = .22, $t(67) = 1.91$, $p = .061$, and a marginally significant main effect of mother's forgiveness toward her partner, β = -.20, $t(67) = -1.70$, $p = .094$. In addition, we found a marginally significant interaction effect between mother's advice and mother's forgiveness toward her partner, β = .20, $t(67) = 1.95$, $p = .056$. We did not find interactions of friendship condition with mother's advice or with mother's forgiveness, p's > .290. Notably, when adding perceived severity or time since the offense as covariates in the analysis, the significant interaction between mother's advice and mother's forgiveness dropped to non-significance, $p = .171$, and we therefore not further discuss this interaction. All other effects remained the same (see Table 5.1).

Table 5.1
Beta Values of Friendship Condition, Mother's Advice, Mother's Forgiveness, and their Interactions, on Self-reported and Behavioral Forgiveness of Children

	Forgivenes Children	
	Self-report	Behavior
Friendship Condition	.50**	.26*
Mother's Advice	.22†	.23†
Mother's Forgiveness	-.20†	-.05
Friendship X Mother's Advice	-.01	-.08
Friendship X Mother's Forgiveness	.13	.32*
Mother's Advice X Mother's Forgiveness	.20†	.03

Note. ** $p < .001$, * $p < .05$, † $p < .10$.

We performed the same analysis on the child's forgiving *behavior*. This analysis again yielded a main effect of friendship condition, β = .26, $t(66) = 2.25$, $p = .028$, and a marginally significant main effect of mother's advice, β = .23, $t(66) = 1.76$, $p = .084$. In addition, we found a significant interaction effect between friendship condition and mother's forgiveness, β = .32, $t(66) = 2.43$, $p = .018$. Further exploration of this interaction effect revealed a significant association between mother's forgiveness toward her partner and children's forgiveness behavior toward friends, β = .34, $t(32) = 2.07$, $p = .047$, but not toward non-friends, β = -.25, $t(37) = -1.55$, $p = .130$. We did not find a main effect of mother's forgiveness, nor interactions between friendship condition and mother's advice or between mother's advice and mother's forgiveness on children's forgiving behavior, p's > .563. Controlling for children's perceived offense severity or time since the offense revealed similar findings.

To summarize, consistent with previous research, the findings of Study 5.1 demonstrate that children are more forgiving in response to offenses by friends than non-friends. This effect occurred irrespective of what advice children receive from parents, and irrespective of parents' level of forgiveness tendencies. We found some suggestive evidence for the role of the parents, but the effects were

mostly marginal. Children who receive more forgiving advice from their mothers also tend to respond in a more forgiving manner (both self-reported and behaviorally), irrespective of the relational context in which the offense occurred. Unexpectedly, children of mothers who report more forgiveness toward their partner indicate to be less forgiving themselves. Children of more forgiving mothers tend to behave more forgivingly toward their friends, but not toward non-friends.

STUDY 5.2

Study 5.2 had three goals. First, the findings of Study 5.1 regarding the role of parents in children's forgiveness tendencies were fairly weak; Study 5.2 aimed to test the robustness of parents' influence on children's forgiveness. Second, to generalize the findings across different forgiveness measures, we used other self-report and behavioral measures of children's forgiving tendencies. The questionnaire for parents was identical to Study 5.1. Again, we manipulated the relational context such that we assessed children's self-reported and behavioral forgiveness toward friends (friend condition) or non-friends (non-friend condition).

Third, to better understand *how* the transfer of forgiveness from parents to children takes place, Study 5.2 examined whether children actually detect their parents' forgiveness tendencies. Are children aware of the instructions parents give them when offended by a peer and of the way their parent in general responds to provocations? And if they are, do children subsequently act in line with how they perceive their parents' advice and forgiving tendencies? To address these questions, we asked children 1) what their parents advise them when they are offended by a classmate ('do your parents advise you to forgive' vs. 'do your parents advise you to strike back'), and 2) the extent to which they think their parents generally respond forgivingly when offended. We examined whether children's perceptions of the advice they receive from their parents and of their parent's forgiveness tendencies are associated with their parents' self-reported forgiving advice and forgiving tendencies and children's own forgiving tendencies.

Method

Participants

Participants were children from Grade 4 to 6 from six elementary schools in the Netherlands. Passive parental consent was obtained a week before the study was conducted; 335 children agreed to participate (participation rate = 96.5%). We excluded children who did not complete the questionnaire because they were

absent (n = 5), because of time constraints (n = 12), or because they could not recall a hurtful incident (n = 26). We dropped additional participants who did not follow instructions (n = 7) or had missing data on one of the main variables (n = 3). Full data were available for 282 children, of 9 to 13 years old (M_{age} = 10.40, SD_{age} = .88; 156 girls). Participants were randomly assigned to the friend condition (n = 142) or non-friend condition (n = 140).[12]

A sample of 141 parents completed the questionnaire (30 fathers and 111 mothers). As in Study 5.1, given the relatively small number of fathers we only used the data of the mothers for the analyses. Because 10 children of the mothers who responded did not complete the questionnaire or had missing data, we ended up with a final sample of 101 mothers and their children (46 boys and 55 girls; friend condition n = 51, non-friend condition n = 50).

Procedure

The procedure of Study 5.2 was similar to Study 5.1. Children again recalled and briefly described an incident in the past when they felt offended by a classmate. As in Study 5.1, we manipulated level of perceived friendship by instructing children to think about a classmate with whom they are friends (friend condition) or not (non-friend condition). As a manipulation check of perceived friendship, participants rated on a 7-point scale (1 = *not at all*, 7 = *very much*) to what extent they were befriended with the specific classmate at the time of the offense. Children also reported offense severity from 1 (*not severe*) to 7 (*very severe*), M = 4.87, SD = 1.73, and how long ago the offense took place from 1 (*today or yesterday*) to 4 (*more than a year ago*), M = 3.05, SD = 1.00. Next, we measured both children's self-reported as well as their behavioral level of forgiveness. After a plenary debriefing, children received a small gift in exchange for their voluntary participation.

Parents again received an online questionnaire using Perseus software after the data collection among children had taken place. We raffled four gift vouchers of €25 among the parents who participated in the study in each classroom.

Measurements

Children's self-reported forgiveness. Self-reported level of forgiveness was measured with the Family Forgiveness Questionnaire (FFQ; Maio et al., 2008). Example

[12] This study is part of a larger data collection in which we also assessed children's level of psychological well-being (see Chapter 2).

items were: when I think back to what my classmate did to me, "I see my classmate as positively as before", and "I am still angry with my classmate" (recoded). Children indicated their answers on a 7-point Likert scale (1 = *completely disagree*, 7 = *completely agree*). We used 6 of the original 8 items; two items were deleted because they could not easily be made understandable for children (see Chapter 2). The average of the 6 items was our indicator of forgiveness, $M = 4.46$, $SD = 1.66$, $\alpha = .88$.

Children's behavioral forgiveness. After a short break in which children completed a connect-the-dots puzzle, we proceeded with a behavioral measure of forgiveness. Children were pointed toward a nicely decorated gift in front of the classroom and were told that the peer with the highest number of credits would win the gift. Participants were asked to recall once more the offending classmate and to indicate how many credits they would like to give to him or her. The number of credits participants gave to the offending classmate was our indicator of forgiveness, ranging from 1 to 10, $M = 5.22$, $SD = 2.96$. This behavioral measure correlated with the self-report measure of forgiveness, $r = .44$, $p < .001$. For an unknown reason, one child did not complete the behavioral measure.

Children's perceptions of parents' forgiveness tendencies. We asked children a few questions about their parents' forgiveness tendencies. First, we asked children what their parents generally advise them how to respond to offending classmates. To this end, we gave children the same advice questionnaire as their parents received. That is, children were asked to rate on a 7-point scale (1 = *not at all*, 7 = *very much*) with three items to what extent their parents advise them to forgive an offending classmate, e.g., "If a classmate offended me, my parents generally advise me that I should try to make up with him or her", and with three items to what extent parents advise them to retaliate an offending classmate, e.g., "If a classmate offended me, my parents generally advise me that he or she should get what he or she deserves." For our analyses, we recoded the three items for children's perception of parents' retaliatory advice and used the average of the six items as our indicator of children's perception of parents' advice, $M = 4.93$, $SD = 1.16$, $\alpha = .71$. Higher scores thus indicated a perception of more forgiving parental advice.

Second, on a scale from 1 (*not at all*) to 7 (*very much*) we asked children with two items to what extent their mother, when offended, generally acts in a forgiving manner (item 1) and retaliatory manner (item 2). After recoding the retaliatory item we used the average of the two scores as our indicator of children's perception of their mothers' forgiveness tendencies, $M = 5.35$, $SD = 1.51$.

Mother's advice. Mothers again first indicated the advice they generally give their child when a classmate offended her or him. We used the same questionnaire as in Study 5.1, and took the average score of the six items as our indicator of mother's advice, $M = 5.70$, $SD = .85$, $\alpha = .79$. One extremely low score was truncated to M - 2.5 SD. Including or excluding this score did not change the results.

Again, we also assessed whether and how often mothers explicitly instruct

their child how to respond when offended, respectively, whether mothers give advice (1 = *I never advise my child how to respond*, 7 = *I always advise my child how to respond*, $M = 5.78$, $SD = 1.04$, and how often mothers give advice (1 = *never*, 5 = *very often*, $M = 3.08$, $SD = .78$). As in Study 5.1, both differ significantly from zero, $t(100) = 55.61$, $p < .001$, and $t(100) = 39.50$, $p < .001$.

Mother's forgiveness. Mother's forgiving tendencies toward her partner were again measured with the TTF (Brown, 2003), $M = 4.69$, $SD = 1.02$, $\alpha = .59$. Mothers without a partner did not receive this questionnaire ($n = 3$).

Results

Our manipulation of perceived friendship was successful: scores on the perceived friendship measure were significantly higher in the friend condition ($M = 4.43$, $SD = 1.79$), than in the non-friend condition ($M = 2.17$, $SD = 1.41$), $F(1, 99) = 49.48$, $p < .001$, $\eta_p^2 = .33$.

As in Study 5.1, we regressed children's self-reported forgiveness tendencies on friendship condition (effect-coded; friend = 1, non-friend = -1), the centered score of mother's advice, the centered score of mother's forgiveness, and their interactions. This analysis yielded a significant main effect of friendship condition, $\beta = .45$, $t(91) = 4.86$, $p < .001$. We did not find significant effects of mother's forgiveness tendencies, or interactions between friendship condition and mother's forgiveness tendencies on children's self-reported forgiveness, p's > .213. Controlling for children's perceived offense severity or time since the offense did not change the results.

The same analysis on children's forgiving *behavior* again revealed a significant main effect of friendship condition, $\beta = .41$, $t(90) = 4.33$, $p < .001$; but no effect of mother's advice, mother's forgiveness, or interaction between friendship condition and mother's forgiveness tendencies, p's > .568. In addition, we found a marginally significant interaction effect between mother's advice and mother's forgiveness on children's forgiving behavior, $\beta = -.17$, $t(98) = -1.67$, $p = .098$.[13] Simple slope analyses revealed no significant effects for different levels (± 1 SD) of mother's advice or mother's forgiveness on children's forgiveness (see Table 5.2). Controlling for perceived severity or time since the offense took place did not change the results.

[13] As in Study 5.1, we checked whether the results change when adding fathers to the analyses. These analyses revealed that only the significant interaction effect between parent's advice and parent's forgiveness on children's forgiving behavior dropped to non-significance when using both mothers and fathers, $p = .119$. All other effects remained the same.

Table 5.2
Beta Values of Friendship Condition, Mother's Advice, Mother's Forgiveness, and their Interactions, on Self-reported and Behavioral Forgiveness of Children

	Forgivenes Children	
	Self-report	Behavior
Friendship Condition	.45**	.41**
Mother's Advice	-.12	-.03
Mother's Forgiveness	.02	-.18
Friendship X Mother's Advice	-.07	-.04
Friendship X Mother's Forgiveness	.04	.05
Mother's Advice X Mother's Forgiveness	.06	-.21†

Note. ** $p < .001$, † $p < .10$.

Children's perceptions of mother's forgiveness tendencies and mother's self-reported forgiveness tendencies. A correlation analysis revealed that children's perception of their mother's forgiving advice is marginally significantly associated with mother's self-reported advice, $r = .19$, $p = .062$. Children's perception of their mother's tendency to forgive is not significantly associated with mother's self-reported forgiveness tendencies, $p = .664$. These findings suggest that children's perception of the advice they receive *somewhat* corresponds with the advice mothers say to give. The findings also suggest that children do not accurately pick up the mother's forgiving tendencies.

Children's perceptions of mother's forgiveness tendencies and children's own forgiveness tendencies. A correlation analysis revealed that children's *perception* of their mother's forgiving advice is not associated with their self-reported or behavioral forgiveness, *p*'s > .137. However, children's *perception* of their mother's tendency to forgive is significantly associated with children's self-reported forgiveness, $r = .24$, $p = .017$, and behavioral forgiveness, $r = .30$, $p = .003$. We also examined whether children's perception of mother's forgiving tendencies (i.e., advice and forgiveness toward partner) interacts with friendship condition. This was true for children's perception of mother's forgiveness on children's forgiving *behavior*, $\beta = .22$, $t(93) = 3.26$, $p = .014$. Post-hoc analysis indicated that perception of mother's forgiveness is significantly associated with forgiving behavior to friends, $\beta = .54$, $t(46) = 4.34$, $p < .001$, but not to non-friends, $p = .619$. Together, these findings suggest that children's actual forgiveness is not in line with the advice they report to receive from their mothers, whereas their forgiveness – in particular to friends – is in line with how they think their mothers would respond to interpersonal offenses.

Table 5.3
Intercorrelations of Children's Perception of Mother's Advice and Forgiveness Tendencies, Mother's Self-reported Advice and Forgiveness Tendencies, and Children's Self-reported and Behavioral Forgiveness Tendencies

	Children's Perception of Mother's	
	Advice	Forgiveness
Mother's Advice	.19†	.14
Mother's Forgiveness	-.02	-.05
Children's Self-reported Forgiveness	.12	.24*
Children's Behavioral Forgiveness	.14	.30*

Note. * $p < .05$, † $p < .10$.

The findings of Study 5.2 again highlight the central role of the relational context in understanding forgiveness tendencies among peers. We did not replicate any of the direct or indirect transfer effects we found in Study 5.1. In addition, we only found weak or non-significant associations between children's perceptions of their mother's forgiveness tendencies and mother's self-reported forgiveness tendencies, suggesting that children do not – or only modestly - pick up their mother's forgiveness tendencies. However, children's perceptions of their mother's forgiving tendencies, but not their advice, are associated with children's forgiving tendencies toward peers, although these perceptions do not seem very accurate.

GENERAL DISCUSSION

Are children's forgiving tendencies mainly a function of the relationship bond with the offender, or are they, additionally, rooted in instruction and social learning by parents? Results of two studies provide support for the notion that stronger perceived friendship between an offended child and an offending peer is associated with more forgiveness. Across the two studies, we found very little evidence that parents' advice or their forgiving tendencies are associated with children's forgiveness toward peers. In Study 5.2, we found that children's *perception* of their mother's forgiving tendencies, but not the mother's advice, are associated with children's forgiving tendencies toward an offending peer. However, these *perceptions* are generally unrelated to mothers' self-reported forgiving tendencies.

These findings contribute to our understanding of when and why children forgive their offenders. Extending previous research, the present findings indicate that the effect of the relationship context on children's forgiveness occurs independently of parents' forgiving tendencies, and independently of the advice

children receive from their parents about how to respond when offended. Thus, these findings suggest that forgiveness is driven by the relationship context, and much less by what they learn or observe.

Interestingly, recent research findings suggest that the underlying mechanisms and possible consequences of children's forgiving tendencies also can best be understood when taking the relational context into account. For example, a child's ability to control and inhibit impulses is positively associated with forgiving tendencies. Importantly however, the association between impulse control and forgiveness appears only when the offender is a friend, suggesting that children's impulse control capacities are relatively irrelevant to forgiveness in the absence of strong feelings of friendship (Chapter 3). Similarly, as to the consequences, children's forgiveness of *friends* is associated with their increased psychological well-being, whereas forgiveness is unrelated to well-being when the offender is a peer the child has no friendship bond with (Chapter 2). Together, such findings indicate that understanding children's forgiving tendencies – their determinants, processes, and outcomes – requires a focus on the nature of the relationship with the offending peer.

The present findings suggest that parents do not play an important role in shaping children's forgiving tendencies toward peers. We found marginally significant correlations in Study 5.1 that were not replicated in Study 5.2. Why did we find little evidence for parental influence on children's forgiveness, despite previous findings suggesting that parents affect children's prosocial responses (e.g., Davidov & Grusec, 2006; Eisenberg, Cumberland, & Spinrad, 1998; Eisenberg et al., 2005)? First, our studies simply may have failed to detect an effect (or only a little, in Study 5.1), while in reality parents do affect their children's level of forgiveness (i.e., Type II error). This may be due to a potential power problem of the studies. Second, it is possible that parents may not affect their children's forgiveness tendencies during this particular developmental stage (i.e., late childhood), when children's behavior is perhaps more strongly guided by peers rather than parents (e.g., Ryan & Ladd, 2012; Sullivan, 1953). An interesting issue to explore is whether parents may play a role in children's forgiveness of peers in other developmental stages, for example at earlier ages when children depend more on their parents. Finally, and perhaps most interestingly, forgiving tendencies *are* indeed shaped most strongly by the value a victim attaches to the relationship with the offender, and forgiveness therefore should be rightfully considered a relationship-specific phenomenon, whereby more distal causes may play a smaller role.

Nevertheless, future research should examine this topic more closely. For example, while parents' forgiving tendencies or their advice did not seem to be related to children's forgiveness, parents may play a role in other more indirect ways. Children's self-esteem, for example, is associated with their forgiving tendencies toward peers (Flanagan et al., 2012; see Chapter 2), and self-esteem is, at least

partly, affected by parenting styles (e.g., DeHart, Pelham, & Tennen, 2006; Steinberg & Morris, 2001). It is also possible that attachment orientations modulate when and why parents affect children's forgiveness. Specifically, securely attached individuals are more likely to forgive an offender (e.g., Finkel, Burnette, & Scissors, 2007), and it is well-known that attachment security depends for an important part on parental caregiving style (e.g., Millings, Walsh, Hepper, & O'Brien, 2012). Last, it could be that learning about forgiveness is only effective if the child is involved in the process (Hastings, Utendale, & Sullivan, 2007). As suggested by Hastings et al. (2007), being the recipient of maternal prosocial actions, rather than merely witnessing mothers' kindness to others, may be necessary for children to internalize prosocial patterns of responding.

Interestingly, in Study 5.2, we found positive associations between children's perception of mother's forgiveness tendencies and children's forgiveness toward a peer provocation. Although this suggests that, in fact, parents do influence children's forgiveness, children's perceptions may be biased by their forgiving tendencies. For example, children who respond in an unforgiving manner to peer provocations may justify this by indicating that their mother would respond in the same way to interpersonal offenses. Or, such children may selectively recall their mother's responses to offenses as being unforgiving. Consistent with this notion, children's perceptions of their mother's level of forgiveness and her actual self-reported forgiveness were not associated.

This study also had some limitations. First, it should be noted that the data were cross-sectional, and thus, we cannot be sure whether perceived feelings of friendship lead to forgiveness, or vice versa. Based on previous findings, we suggest the direction can go both ways. For example, Finkel and colleagues demonstrated that experimental manipulations of relationship value induce higher levels of forgiveness (Finkel et al., 2002). At the same time, several studies have indicated that forgiveness instigates pro-relationship responses, which in turn promote feelings of closeness (e.g., Karremans & Van Lange, 2008; Paleari et al., 2005).

Second, we performed the analyses only using the data of the mothers, as the number of fathers who participated was too small to perform reliable analyses concerning differences between the role of mothers and fathers. The effects did not essentially differ when including fathers in the analyses (see Footnotes 11 and 13), however, this might change when using a bigger sample including equal numbers of mothers and fathers. There are differences in the way mothers and fathers respond to children's antisocial behavior, with mothers acting in more responsive and warm manners than fathers (e.g., Casas et al., 2006; Verhoeven, Junger, van Aken, Dekovic, & van Aken, 2010; but see Caron, Weis, Harris, & Catron, 2006; Davidov & Grusec, 2006). In a similar way, it is possible that mothers and fathers differently teach their children about forgiveness. Relatedly, in Study 5.2, children's perceptions of their parents' forgiveness tendencies were not specified

by gender. It is possible that mothers and fathers not only differently instruct their children about forgiveness, but that children also perceive their forgiving tendencies in a different way. Future studies may explore these different roles of mothers and fathers in children's forgiveness.

Finally, in the present studies we asked parents what advice they *generally* give their children when offended by a peer. Given that children strongly distinguish forgiveness to friends and non-friends, it may be that parental advice also depends on the relational

context in which the offense occurred. Given the many benefits of friendship in childhood, it is likely that parents particularly advise their children to forgive offending friends, but may be less concerned about their child's forgiveness of non-friends. Future studies replicating and extending the current findings may also take into account the relational context from the perspective of the parent.

Conclusion

Despite previous research suggesting strong parental influences on children's social and emotional development, the current findings demonstrate that parents have little influence on how children respond to and deal with offenses. In contrast, whether or not parents are forgiving, and irrespective of what advice they give, children's level of forgiveness can best be understood in terms of the relational context in which the offense took place. Thus, the present findings suggest that most parental advice on how to respond when offended seems to fall on deaf ears.

Chapter 6

Forgiveness and Society's Focus on Being Special

This chapter is based on:
Van der Wal, R. C., & Karremans, J. C. (2015). Too special to forgive. *Submitted for publication*.

Abstract

IN current Western society, there is a strong emphasis on individual *specialness*. For example, intervention programs and even smart phone apps are aimed at increasing feelings of being special. However, the *interpersonal* consequences may not be as anticipated. We examined whether reminding people of how special they are reduces prosocial behavior, particularly in the wake of an offense. Study 6.1, among undergraduate students, demonstrated that the instruction to think of how special one is results in less prosocial forgiving behavior toward an offending experimenter. In addition, a brief specialness intervention among children showed that explicitly telling children that they are special leads to less prosocial forgiving behavior toward offending classmates (Study 6.2). These results suggest that focusing on individual specialness obstructs prosocial forgiving responses, which ultimately may undermine one's interpersonal relationships.

Some time ago, the state of California instigated a task force to boost children's self-image by emphasizing to children that they are special (California-Task-Force-to-Promote-Self-Esteem, 1990). For example, children learn songs conveying how special they are (e.g., the children's song *I am Special* to the tune of Frère Jacques), and at some schools, children are wearing badges with "[own name] is special" (Twenge & Campbell, 2009). Not only children's, but also adults' self-worth is thought to improve by focusing on how special each individual is. Self-help books explain to their readership how they can love themselves by challenging readers to realize how special they are (e.g., Harrill, 1995), and a smart phone app helps to remind its users of their specialness (Samson & Bayley, 2010). These are only a few examples demonstrating how Western society often preaches that each person is a special individual (Twenge & Campbell, 2009).

The goal of reminding people of how special they are is not just to strengthen their self-worth. Low self-worth was expected to lie at the root of antisocial behavior and unstable relationships (e.g., Branden, 1994), and a strengthened self-worth was ultimately expected to lead to more positive social interactions and improved interpersonal relationships. However, it is unclear whether these potential beneficial effects are actually achieved (Baumeister, Campbell, Krueger, & Vohs, 2003). In the current research, we seek to understand what the psychological and interpersonal consequences are when reminding people that they are special. Specifically, we examine whether reminding people of how special they are may actually undermine prosocial forgiving behavior in the wake of an offense, and as such, may sometimes hurt rather than help interpersonal functioning. Our goal is to examine the interpersonal consequences of reminding people how special they are, as often done in interventions, smart phone apps, self-help books, and at schools. Hence, taking a practice-based approach, we operationalize specialness by reminding participants that they are special, and examine its effect on prosocial forgiving behavior.

Despite Western society's emphasis on specialness, surprisingly little research has directly examined the implications of telling people that they are special. There are, however, research findings that are relevant to understanding the interpersonal effects, in particular the potential consequences for prosocial functioning when being offended. It has been suggested that society's focus on specialness goes hand in hand with a general increase in a sense of narcissistic entitlement (Twenge & Campbell, 2009). People who have a high sense of entitlement believe that they are special, deserve more than others, and wish to be treated as such (Campbell, Bonacci, Shelton, Exline, & Bushman, 2004). Millon (1981) argued that a sense of narcissistic entitlement may have its roots early in life when parents treat their child as a special person, and keep telling their child that she is special (Otway & Vignoles, 2006). Thus, the implicit or explicit assumption often has been made that a focus on how special one is may actually *lead* to narcissistic tendencies – an assumption we will test in a pilot study.

There is correlational evidence that a sense of narcissistic entitlement – as an individual difference measure – is negatively related to prosocial forgiving responses after individuals are offended (Brown, 2004; Eaton, Struthers, & Santelli, 2006; Exline, Baumeister, Bushman, Campbell, & Finkel, 2004). Narcissistic entitlement involves the feeling of being entitled to special treatment. Entitled individuals are relatively easily offended, act more selfishly after being wronged, and tend to respond in a more aggressive, and less forgiving, manner toward offending relationship partners (Bushman, Bonacci, van Dijk, & Baumeister, 2003; Twenge & Campbell, 2003; Zitek, Jordan, Monin, & Leach, 2010).

We argue that, in a similar vein, reminding people that they are special may reduce the willingness to behave prosocially after being wronged. People who are told that they are special may feel entitled to receive a "special" treatment, and hence, when treated unfairly, they may be less likely to respond in a prosocial forgiving manner. This would suggest that at least the interpersonal consequences may not be as beneficial as "special programs" foresee. Having well-functioning and stable interpersonal relationships relies for an important part on how people respond to one another in times of conflict (Fincham, 2000). Research findings suggest that the ability to prosocially shift emotions, cognitions, and behavior, toward the offender into more forgiving responses is an essential aspect of lasting interpersonal relationships (e.g., Karremans & Van Lange, 2008; Paleari, Regalia, & Fincham, 2005).

Based on the above, we examined the hypothesis that instructing people to think of how special they are results in increased narcissism (in the pilot study), and in parallel, may result in less prosocial forgiving responses. Specifically, in Study 6.1, we examined the effect of thinking about one's specialness on prosocial behavior following a provocation by an experimenter in the lab. In Study 6.2, we conducted a field experiment among children in which we investigated the effects of a brief "specialness" intervention on children's prosocial forgiving behavior toward offending classmates. Importantly, we hypothesize that feeling special would be associated with less prosocial behavior particularly if the "special person" experiences a threat to their sense of being entitled to a "special" treatment. Previous research has demonstrated that people who report a relatively strong sense of entitlement are more likely to commit aggressive acts against others who evaluated them negatively, but not against others who praised them or against innocent third parties (Bushman & Baumeister, 1998; Campbell et al., 2004; Thomaes, Bushman, Stegge, & Olthof, 2008). Put differently, we expect that "special" instructions would not reduce prosocial behavior in general, but only when harm is inflicted.

PILOT STUDY

The pilot study tested whether instructing people to think of how special they are leads to increased narcissism. Although narcissism is generally seen as a relatively stable trait, we reasoned that a focus on specialness may temporarily boost narcissistic tendencies. One-hundred-and-one students (84 women, M = 21 years, SD = 2.38) were randomly assigned to a special vs. not-special vs. control condition.

Participants received the following instructions. In the special condition: "Describe why you are different from other people around you. Please emphasize what makes you *special* as a person"; in the not-special condition: "Describe why you are similar to other people around you. Please emphasize your similarities with other people"; in the control condition: "Describe the campus facilities". Next, narcissistic tendencies were measured with the Narcissistic Personality Inventory (NPI-16; Ames, Rose, & Anderson, 2006), consisting of 16 forced-choice items (e.g., "I am an extraordinary person" vs. "I am much like everybody else"). Omitting one item increased the scale reliability (α = .62; M = 1.74, SD = .15).

We found a significant effect of the specialness manipulation (special vs. not-special vs. control) on narcissistic tendencies, $F(2, 98) = 7.02$, $p = .001$, $\eta_p^2 = .13$. The special instruction condition yielded higher narcissism scores, (M = 1.82, SD = .14) than both the not-special condition (M = 1.68, SD = .17, $p < .001$), and control condition (M = 1.74, SD = .14, p = .052). The difference between the not-special condition and control condition was marginally significant (p = .084). Thus, in line with our reasoning, our manipulation of asking participants to think of how special they are leads to temporary increases in narcissism.

STUDY 6.1

In Study 6.1, participants were instructed to think about their specialness after which they were treated in an unfriendly or neutral manner by the experimenter. Subsequently, we measured their prosocial behavior toward the experimenter. We expected that participants in the special condition would show less prosocial behavior, but only when they receive an unfriendly treatment.

Method

Participants and design

One-hundred-and-nineteen students (113 women, M = 19 years, SD = 1.83) participated for course credit or money. After giving informed consent, participants

were randomly assigned to one of the four conditions of the 2 (specialness manipulation: "special" instruction vs. control) X 2 (behavior experimenter: unfriendly vs. neutral) between-subjects design.

Procedure

Participants were placed in front of a computer and informed that they would take part in several unrelated experiments. First, specialness was manipulated as in the pilot study, with the exception that Study 6.1 did not include a not-special condition.

Following the manipulation, participants were asked to answer several questions about the lab facilities, allegedly as part of a "lab evaluation survey". While answering these questions, a preprogrammed error suddenly popped up. Participants could not continue, and as anticipated, all participants left the cubicle to inform the experimenter. The experimenter went back to the cubicle with the participant to find out what was going on. The experimenter – unaware of whether the participant was in the special or control condition – either responded unfriendly by saying somewhat annoyed: "What did you do?! Did you touch anything?" (unfriendly condition), or neutrally, saying: "No worries. This happens every now and then" (neutral condition). The experimenter then restarted the experiment, and participants completed the remaining questions. As a manipulation check, one item in the lab survey asked participants to what extent they thought the experimenter was friendly (1 = *not at all* to 5 = *very much*).

After the survey, participants read about the research plans of the experimenter. It was told the experimenter had just started her PhD-project and had to collect a lot of data. Participants were asked if they wanted to help the experimenter with future research. If they agreed, they could type in their email address so that the experimenter could contact them in the future. This served as our indicator of a prosocial response toward the experimenter.

Results

A GLM-analysis with experimenter behavior (unfriendly vs. neutral) and specialness manipulation (special vs. control) as independent variables yielded only a significant main effect of experimenter behavior on perceived friendliness, $F(1, 115) = 23.38$, $p < .001$, $\eta_p^2 = .17$. As intended, when the experimenter responded unfriendly, participants reported the experimenter was less friendly ($M = 3.73$, $SD = 1.08$), than when the experimenter responded in a neutral way ($M = 4.53$, $SD = .57$).

Next, we conducted a logistic regression analysis on the number of times participants gave their email address with specialness manipulation, experimenter

behavior, and their interaction as predictors. First, this analysis revealed a main effect of experimenter behavior, B = 1.51, Wald(1, 115) = 12.18, $p < .001$. Overall, when the experimenter behaved unfriendly versus neutral, participants were less likely to give their email address.

More importantly, the analysis yielded the expected interaction between the specialness manipulation and experimenter behavior, B = 1.88, Wald(1, 115) = 4.77, $p = .029$ (see Figure 6.1). Participants in the special condition were less likely to give their email address when the experimenter responded unfriendly rather than neutrally, B = -2.45, Wald(1, 115) = 13.51, $p < .001$. The effect of experimenter behavior was not significant in the control condition, $p = .304$.

We also looked at the interaction from a different perspective, by examining the effect of the specialness manipulation at different levels of experimenter behavior (unfriendly vs. neutral). These analyses yielded no significant effects of the specialness manipulation on the likelihood participants giving their email address after participants were treated in an unfriendly, $p = .122$, or neutral manner, $p = .122$.

Providing additional support for our hypothesis, a planned comparison analysis revealed that, compared to participants in all other three conditions, participants that were instructed to think of how special they are and received an unfriendly treatment displayed the lowest level of prosocial behavior toward the experimenter, B = -1.68, Wald(1, 115) = 8.08, $p = .004$.

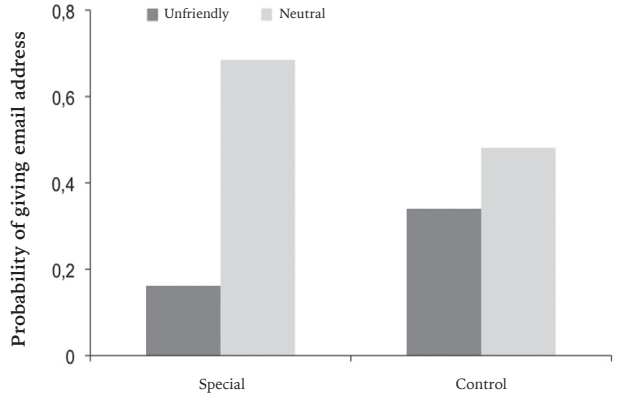

Figure 6.1. The probability of participants giving their email address as a function of special instructions and experimenter-behavior.

In sum, the findings of Study 6.1 indicate that individuals instructed to think of how special they are were more strongly affected by the behavior of the experimenter than individuals in the control condition. Although the "special" individuals generally

were not more or less forgiving when treated unfairly than individuals in the control condition, "special" individuals who were treated in an unfair manner displayed the lowest levels of prosocial forgiving behavior as compared to all other conditions.

STUDY 6.2

In Study 6.2, we aimed to test our predictions among children at elementary schools, for whom the specialness interventions were mainly developed originally. We conducted a field experiment in which we induced children either to believe that they are special, or not special. Thus, whereas in Study 6.1 we compared the special condition with a control condition, in Study 6.2 we compared the special condition with a not-special condition, as a way to maximize the differences between groups. In addition, we included a manipulation check to examine whether participants indeed felt more, or less, special depending on the condition they were in. We hypothesized that instructing children that they are special would result in less prosocial forgiving behavior toward offending classmates as compared to instructing children that they are actually not special.

Method

Participants and design

In agreement with procedures of the schools, we used passive parental consent, which means that parents could indicate if they did not want their child to participate in the study. Participants were 121 children of 10 to 13 years old (M = 11 years, SD = .82), recruited from two elementary schools in the Netherlands. Although Study 6.1 mainly consisted of women, Study 6.2 consisted of a nearly equal number of girls and boys; n = 62 girls, and n = 59 boys. To prevent the possibility that children would tell each other about the content of the study, we manipulated specialness between schools (special: n = 69, not-special: n = 52).[14] One participant who had trouble reading the reading the materials, three participants that showed suspicion of the prosocial behavior measure, and six participants that could not recall a hurtful incident were excluded from the analyses.

[14] We conducted an additional study among 61 children of the same two schools (n = 28 at school 1 and n = 33 at school 2) but in different grades (grade 4 instead of grade 5 and 6). This study consisted of the same forgiveness measures (both self-report and behavior), and in addition a measure of psychological well-being, sociometrics, and parental forgiving behavior. Among these variables we did not find differences between the schools, p's > .347. Hence, although we are aware of the fact that the between-schools manipulation is a potential limitation of Study 6.2, it does not seem to account for the presented findings.

Procedure

Participants were told that the paper-and-pencil questionnaire consisted of two parts. In part A, participants recalled, and briefly described, an incident in the past when they felt offended by one of their classmates. Next, participants indicated to what extent they were friends with that specific classmate (1 = *not at all*, 7 = *very much*; M = 3.61, SD = 1.88), offense severity (1 = *not severe*, 7 = *very severe*; M = 4.58, SD = 1.71), and time since the offense from 1 (*today or yesterday*) to 5 (*more than a year ago*). The experimenter then collected the questionnaires, and told the participants it was time for something else.

In the special condition, the experimenter instructed the participants: "*I would like to talk with you about what makes you special as a person. Do you actually realize that you are a special person? Everyone in this classroom has his/her own qualities, and his/her own interests. Who can think of something that makes you special?*" Participants came up with a variety of answers that makes them special, such as "*I am the only one in the classroom with red hair*" and "*I am a really good soccer player*". After discussing for five minutes what it is that makes them special, participants were instructed to put "[own name] is special" on a badge. They were allowed to choose their preferred colors, and to decorate the badge in their own way. After 10 minutes, participants were asked to pin the badges on themselves.

In the not-special condition, the experimenter drew the Chinese ideogram of similarity on blackboard, and asked the participants what they thought the meaning of the symbol was. After explaining the actual meaning, the experimenter continued by saying: "*I would like to talk with you about what makes you similar to other persons. Do you actually realize that, in the end, we all are similar persons? Who can think of something that makes us similar to each other?*" Participants came up with answers such as "*Everyone in this classroom feels a little sad every now and then*" and "*We all make mistakes*". After discussing for five minutes what it is that makes them similar to each other, participants were instructed to put the Chinese ideogram of similarity on a badge. They were again allowed to choose their preferred colors and materials. After 10 minutes, participants pinned the badges on themselves.

In part B of the paper-and-pencil questionnaire, participants were first asked how special they currently felt (1 = *not at all*, 7 = *very much*). Participants were then pointed toward a nicely decorated gift in front of the classroom, and were told that the peer with the highest number of credits would win the gift. Participants were asked to think about the offending classmate once again, and to indicate how many credits they would like to give to him/her. Thus, the more credits a participant gave to the offending peer, the higher the chances were he/she would win the gift. The number of credits participants gave to the offending classmate was our indicator of a prosocial forgiving response, ranging from 1 to 10 (M = 6.03, SD = 2.99).

Results

As a manipulation check, an ANOVA revealed a significant effect of the special manipulation on perceived feelings of being special, $F(1, 119) = 7.22$, $p = .008$, $\eta_p^2 = .06$. Participants reported feeling more special in the special ($M = 5.04$, $SD = 1.59$) than in the not-special condition ($M = 4.27$, $SD = 1.54$).

Next, we tested our core hypothesis by performing an ANOVA with the special manipulation as independent variable, and prosocial behavior as the dependent variable. Although the direction of the means were in line with the hypothesis – less prosocial behavior in the special condition ($M = 5.65$, $SD = 2.95$) than in the not-special condition ($M = 6.53$, $SD = 2.98$) – the effect of the special manipulation did not reach significance, $p = .109$.

However, when further exploring the data, we found that the effect of the special manipulation on prosocial behavior was moderated by perceived severity, $\beta = .20$, $t(118) = 2.21$, $p = .029$ (Figure 6.2). Simple slope analyses (Aiken & West, 1991) revealed a significant effect of the special manipulation at high levels of perceived severity (+ 1 *SD*), $\beta = .37$, $t(118) = 2.98$, $p = .003$. Thus, when strongly hurt, children in the special condition were less likely to act prosocially than children in the not-special condition. In contrast, at low levels of perceived severity (- 1 *SD*), the association between the special manipulation and prosocial behavior was not significant, $\beta = -.04$, $t(118) = -.30$, $p = .762$. Notably, when adding friendship level or time since the offense as covariates to the analysis, the effects became even stronger.

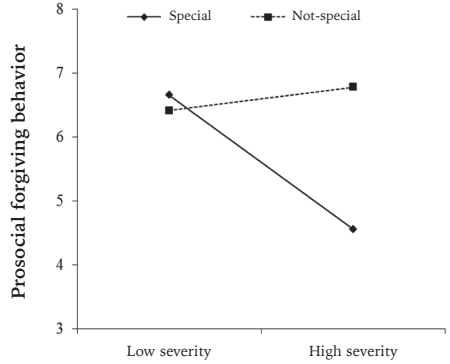

Figure 6.2. The effect of children's prosocial forgiving behavior in the special and not-special condition for varying levels of perceived severity (± 1SD).

To summarize, children wearing a badge with "[own name] is special" were less likely to act prosocially in the wake of an offense, however, this was only the case for relatively severe as opposed to mild offenses.

GENERAL DISCUSSION

In the current research we tested the interpersonal consequences of specialness reminders, an issue that has received hardly any empirical attention, despite the fact that in Western society it is often advocated that feelings of being special lead to a range of positive outcomes (Twenge & Campbell, 2009). Study 6.1 demonstrated that, when provoked, participants reminded of their specialness behaved less prosocially toward an offending experimenter. In Study 6.2 we generalized the laboratory findings to the real world by showing that children, when explicitly told that they are special, acted in a less prosocial manner in response to an offense. However, this effect only occurred when the offense was perceived as relatively severe. Together, these findings provide support for the causal link between reminders of being special and a decline in prosocial forgiving behavior after being provoked.

Why does being reminded of one's specialness undermine prosocial behavior in the wake of an offense? In line with previous theorizing, we reasoned that reminding people of their specialness may be strongly linked to a sense of narcissistic entitlement. Narcissistically entitled individuals feel that they are special, and wish to be treated as such (e.g., Campbell et al., 2004). Although we do not have direct evidence that narcissistic entitlement mediates the link between specialness and prosocial behavior, the results of the pilot study supported our reasoning that thinking of how special one is leads to temporary increases in narcissism. Yet, an interesting avenue for future studies is to tap further into the exact underlying mechanisms. For example, our "special" and "non-special" instructions have some resemblance with manipulations of independent and interdependent selves, and there is some evidence that independent self-construal is negatively associated with prosocial behavior (Neto & Mullet, 2004). Hence, in addition to increasing narcissism, specialness reminders may induce an independent self-construal, while non-special reminders may induce an interdependent self. Nevertheless, for now the important conclusion of the present research is that specialness reminders may not always have the beneficial interpersonal consequences that intervention programs may aim for.

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[14] Notably, in Study 6.1 and 6.2 we also measured participants' prosocial *intentions* on a self-report measure. Specifically, in Study 6.1, we asked participants about their intentions to help the experimenter in future research (e.g., "Do you want to voluntarily recruit participants?"). In Study 6.2, we measured self-reported levels of prosocial forgiving intentions with a modified version of the Family Forgiveness Questionnaire (i.e., "Can you easily forgive what your classmate did to you?"; Maio, Thomas, Fincham, & Carnelley, 2008). In addition, we ran a study in which we examined the effects of the specialness manipulation on self-reported forgiving tendencies regarding a past offense, using the Transgression-Related Interpersonal Motivation Scale (TRIM; McCullough et al., 1998). Although both Studies 6.1 and 6.2 provided support for the hypothesis that specialness reduced prosocial behavior toward an offender, we did not find this for prosocial *intentions* (yet, the intention measures correlated with the behavioral measures, respectively Study 6.1, $r = .31$, $p = .001$, and Study 6.2, $r = .61$, $p < .001$).

An interesting implication of the current findings is that special individuals' decline in prosocial tendencies in times of conflict may eventually hurt the special individual him or herself. For instance, prior research demonstrated that unforgiving responses are associated with lower psychological well-being, particularly in close relationships (Karremans, Van Lange, Ouwerkerk, & Kluwer, 2003; Chapter 2). Thus, whereas the idea of special interventions is to increase rather than decrease psychological well-being, people who are instructed to feel special, may – paradoxically – suffer from these interventions if they become less forgiving toward offending others. This supports the notion that society should be careful with boosting people's self-worth through specialness interventions (e.g., Baumeister et al., 2003).

The current studies had some limitations. Across the studies we found support for our general prediction on indicators of prosocial *behavior*. However, as discussed in the footnote below,[15] we did not find these effects on measures of prosocial *intentions*. It is possible that there may be differences between self-reported prosocial intentions and actual prosocial behavior. In general, self-reports arguably are more sensitive to biases such as social desirability or consistency as compared to behavioral indices of prosociality (e.g., Hessing, Elffers, & Wiegel, 1988; Webb & Sheeran, 2006). Relatedly, the urge to act in a retaliatory manner toward offending others may be captured more easily on a behavioral rather than self-report measure. In any case, the discrepancies between behavioral and self-reported outcomes underline the value of using behavioral measures of prosocial tendencies in addition to self-report measures (Baumeister, Vohs, & Funder, 2007).

Moreover, in Study 6.2, we found that children who were told that they are special responded less prosocially, but only in case of highly severe offenses. Children who were asked to focus on their similarities with other children did not demonstrate this effect of offense severity on their prosocial behavior. As previous research demonstrated that offense severity is in general negatively correlated with prosocial behavior (e.g., Worthington, 1998), a related explanation could be that the not-special manipulation attenuated the generally negative effect of offense severity on prosocial behavior, resulting in more prosocial responses toward relatively severe offenses. This is in line with research findings demonstrating that establishing commonalities between individuals may be a powerful strategy to increase several types of prosocial behaviors (e.g., Exline, Baumeister, Zell, Kraft, & Witvliet, 2008; Greenaway, Louis, & Wohl, 2012), or decrease antisocial behaviors (Konrath, Bushman, & Campbell, 2006). Thus, while specialness may undermine prosocial behavior when offended, focusing on non-specialness (i.e., similarities) may actually increase prosocial tendencies. In future research it would be interesting to further explore the effects of focusing on non-specialness and the promising effects it has on prosocial behavior. At the same time, however, the moderating role of perceived severity in Study 6.2 seems consistent with the notion that less severe offenses are less likely to threaten a special person's feelings of entitlement to a fair treatment.

In support of this, Thomaes et al. (2008) demonstrated that narcissistic children were more aggressive than others, but *only* after they had been shamed.

Third, we cannot be sure whether the measures in our studies reflect forgiveness per se, or whether they reflect prosocial tendencies in general. First of all, it is important to note that in our studies feelings of being special did not generally undermine prosocial behavior, but only when participants felt relatively strongly hurt. Accordingly, as a measure of forgiving behavior we assessed participants' prosocial responses in the wake of the offense (i.e., an offending experimenter in Study 6.1, and an offending classmate in Study 6.2). We reasoned that the behavior would reflect the level of forgiveness regarding the offense. In agreement with this, the behavioral measures strongly correlate with the self-report measures of forgiveness (see Footnote 15). Nonetheless, this does not rule out the possibility that the measure partly reflects people's prosocial tendencies in general.

Furthermore, it is important to note that the present findings are relatively modest in size. One reason for this may be that, in addition to inducing feelings of entitlement, the special manipulation may also have induced feelings of self-affirmation. Since entitlement and self-affirmation can have opposing effects on forgiveness (see Exline & Zell, 2009), this may explain why the effects are relatively weak. In future research it is interesting to disentangle the relationship between specialness reminders and feelings of entitlement and self-affirmation.

As a final point, it is important to note that feeling special may not always have negative interpersonal consequences. For example, we did not find effects of specialness reminders on prosocial behavior when individuals were not provoked (i.e., Study 6.1), or in case of offenses that were perceived as less severe (i.e., Study 6.2). If anything, there was a trend toward slightly more prosocial behavior of participants in the special conditions as compared to a not-special, or control condition. Similarly, prior research demonstrated that entitled individuals behave more aggressively following criticism, but not following praise (e.g., Bushman & Baumeister, 1998). Hence, as long as they are treated fairly, special individuals' interpersonal behavior does not seem to differ from individuals who do not feel particularly special, or in fact they may even behave more prosocially when they receive an extra fair treatment.

Conclusion

To conclude, whereas telling someone that he or she is a very special person may be a sign of affection, the present findings suggest that too much focus on specialness may reduce a person's prosocial and forgiving responses in the wake of an offense, which ultimately may hurt rather than help the special person's interpersonal relationships – something worth considering when evaluating interventions that are aimed at boosting feelings of specialness.

Chapter 7

General Discussion

THE purpose of the present dissertation was to gain more insight into forgiveness tendencies among children, which until now received only limited attention in developmental psychology. The studies presented in this dissertation were designed to examine the determinants and consequences associated with children's tendency to forgive offending peers. In this concluding chapter, I will not iterate the issues that are previously addressed in the discussion sections of the different chapters. Rather, I will provide the reader with an overarching conclusion: what have we learned from the studies presented in this dissertation? What does it mean? And, what can we do with it?

Summary of the Findings

Given that research on forgiveness in peer relationships is scarce, I started this dissertation in Chapter 2 by exploring the *consequences* of forgiveness among children. Specifically, I turned to the basic but important question whether responding in a forgiving manner to interpersonal offenses is related to children's **psychological well-being**. Based on the literature on forgiveness in adult relationships, it was argued that the association between children's forgiving tendencies and psychological well-being depends on the nature of the relationship in which forgiveness occurs. In line with predictions, forgiveness was associated with psychological well-being, but this association was only evident when children forgave a friend, and not when children forgave a non-friend. Moreover, the essential role of the relational context in explaining forgiveness tendencies among peers was confirmed, such that children were more likely to forgive peers they were befriended with than other peers.

In the Chapters 3 to 6 I examined the possible *determinants* of forgiveness among children, using the model depicted below as a framework to guide specific research questions on different levels of analysis (see Figure 7.1). In Chapter 3, I touched upon the level of **child characteristics**, and addressed the question why some children are better able to protect and maintain their friendships than others. Specifically, although the findings of Chapter 2 suggest that the level of perceived friendship is a strong predictor of children's tendency to forgive, not every child may always be *able* to act accordingly. That is, even children who are strongly befriended with an offending peer may sometimes engage in behaviors that potentially damage or threaten the continuation of the friendship. Based on previous research (e.g., Pronk, Karremans, Overbeek, Vermulst, & Wigboldus, 2010; Wilkowski, Robinson, & Troop-Gordon, 2010), in Chapter 3 it was argued that children's ability to *inhibit* retaliatory inclinations may help to forgive an offending peer. Consistent with this reasoning, in four studies with different age groups (i.e., children and undergraduate students), the capacity for executive control was associated with more forgiveness. Importantly, this effect only occurred in highly valued relationships (i.e., friendships). In the absence of high relationship value, the individual's capacity for executive control was irrelevant to forgiveness. These results suggest that to forgive an offender, both relationship value and executive control are required.

Besides children's ability to control their impulses and the immediate relational context, children's propensity to forgive may also depend on their social position in the **peer group**. In Chapter 4, I turned to the question whether children's social standing in the peer group is associated with their tendency to forgive offending peers. In particular, I examined the role of popularity in children's forgiving tendencies toward friends and non-friends. Results of two studies revealed that popularity was positively associated with forgiveness. Yet, there were two factors

that further specified this effect; first, this effect was only found for boys, and second, the extent to which the child is befriended with the offender was a stronger predictor for forgiveness for low-popular boys than for popular boys. Thus, boys' social standing in the peer group was related to their propensity to forgive.

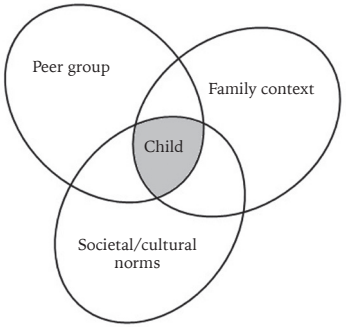

Figure 7.1. A model structuring the determinants of forgiveness among children at different levels of analysis.

As can be seen in Figure 7.1, another potential determinant of children's forgiveness tendencies reflects the **family context**. In Chapter 5, I examined the role of the parents on children's tendency to forgive an offending peer. Based on earlier findings suggesting that parents play an important role in shaping children's prosocial tendencies (e.g., Ackerman et al., 2013), it was argued that parents may also impact their children's forgiving tendencies. Specifically, it was examined whether parents' instructions to the child how to respond to offenses, and the parents' level of forgiveness vis-à-vis each other, would be associated with children's forgiving tendencies toward peers; above and beyond any effects of children's relationship with the offender. In two studies, perceived friendship between the offended child and the offending peer was associated with more forgiveness, and this did not interact with any of the effects of the parents on the children. It thus seems that parents do not directly influence the way children generally respond to a peer provocation.

A final level of analysis concerns **societal or cultural norms**, and I addressed this issue in Chapter 6. Specifically, I examined the interpersonal consequences of society's current focus on individual specialness. Today, children as well as adults often are told that they are special individuals (Twenge & Campbell, 2009). In a lab study among students, and a field study among children, it was examined whether reminding individuals of how special they are affects their forgiveness tendencies in the wake of an offense. Results of two studies demonstrated that instructions to think of how special one is results in less forgiving behavior toward an offending experimenter, or an offending classmate. These findings imply that

focusing on individual specialness obstructs forgiving responses, which ultimately may undermine the person's interpersonal relationships.

In summary, the findings of this dissertation listed above indicate that a broad range of determinants at different levels can impact children's tendency to forgive. Moreover, the relational context seems not only to be a key predictor of children's tendency to forgive, it also helps to understand when and why other determinants affect children's forgiveness; the relational context explains when and why executive control is related to forgiveness, or when children's social status in the peer group affects their forgiveness tendencies. The different levels of analysis, together with the notion that the study of forgiveness among children is still in its infancy, reveal many possible future research directions. In the next part of this final chapter I wish to highlight the most important theoretical considerations and future research directions that arise from the model, and the dissertation more generally.

Theoretical Considerations and Future Research Directions

There are several general directions for future research, from which more specific studies can be further developed. In the paragraph below I first discuss the implications of the determinants *per level of analysis*, after which I turn to the possible *interactions between the levels of analysis*. I will end this paragraph by suggesting other theoretical considerations and future research directions that do not directly follow from the model.

Determinants predicting children's forgiveness – per level of analysis

In this dissertation, several determinants at different levels of analysis were addressed in order to find out when and why a child forgives an offending peer. There are, however, many other determinants at the different levels that may also influence children's forgiveness, and did not receive attention here. To name a few, there are several other child characteristics that may either enhance or inhibit victims' tendencies to forgive. For example, previous research suggests positive associations with the Big Five personality factor agreeableness (Maio, Thomas, Fincham, & Carnelley, 2008). At the level of the family context, a suggestion for future research is to explore whether divorced versus non-divorced parents differently affect a child's tendency to forgive an offending peer. Notably, given the importance of the relational context for forgiveness, an interesting question is whether such inter-individual differences between children relate to their forgiveness above and beyond any effects of the relational context. To gain a more complete

picture of when and why children forgive offending peers it is important to find out how other determinants at each level of analysis influence children's propensity to forgive.

Determinants predicting children's forgiveness – in an interactive manner

Although so far I examined and discussed the effects of the determinants from each of the levels on forgiveness separately, I do not wish to suggest that these effects are theoretically and empirically independent. Instead, the determinants of forgiveness at the different levels may be dynamically interrelated. A good example where two levels may interactively determine children's forgiveness tendencies deals with the findings presented in Chapter 5 of this dissertation. Here it was demonstrated that parents do not directly seem to influence children's forgiveness tendencies. As already suggested in the discussion of the studies, there may be ways in which parents indirectly influence their children's forgiveness. Looking at the findings of Chapter 3 of this dissertation, one possibility is that parents may indirectly facilitate a child's forgiveness tendencies by exerting influence on the child's ability to control his or her impulses. In support of this, Finkenauer, Engels, and Baumeister (2005) demonstrated that adaptive parenting behavior (high parental acceptance, strict control and monitoring, and little use of manipulative psychological control) was associated with the child's capacity for self-control. In this way, the family context and child's characteristics in interaction influence the child's forgiveness tendencies.

As another example, determinants at the level of societal and cultural norms may interact with determinants at the level of the peer group. For instance, Li and Wright (2014) recently showed that in a more collectivistic culture children with high status tend to use less aggression than children with high status in an individualistic culture (see also Li, Xie, & Shi, 2012). Such findings suggest that children's level of forgiveness depends on *both* their status in the peer group, as well as the norms and values of the culture they live in.

Together, the aforementioned examples indicate that determinants at different levels of analysis can influence the way in which children respond to peer provocations - in an interactive manner. Of course, there are many other possibilities than the two mentioned in this paragraph that further explain forgiveness tendencies among children. The model may help to guide and structure such possibilities, which is particularly useful given the fact that relatively little is known about when and why children forgive their peers.

The developmental trajectory of forgiveness

Throughout the dissertation I focused on the determinants and consequences of forgiveness tendencies among children in late childhood. Although there were good reasons for selecting this specific age group (i.e., they conceptually understand forgiveness, and the transition to high school has not taken place yet), an interesting and important question is what the current findings can tell us about the developmental trajectory of forgiveness. For example, are the effects presented in this dissertation restricted to late childhood per se, or can they be generalized to other age groups?

First of all, it is important to consider that the findings in this dissertation generally correspond well with previous research on the topic of forgiveness in adulthood. For instance, the key role of the relational context in explaining people's forgiveness tendencies has been demonstrated by numerous other studies using adult samples (e.g., Fehr, Gelfand, & Nag, 2010; Finkel, Rusbult, Kumashiro, & Hannon, 2002; McCullough, 2008). Furthermore, the findings in Chapter 2, where strong positive associations were found between forgiveness and psychological well-being among friendships, are in accordance with previous research on the link between forgiveness and well-being in adult romantic relationships (Bono, McCullough, & Root, 2008; Karremans, Van Lange, Ouwerkerk, & Kluwer, 2003). In Chapter 3, similar results on the interactive role between relationship value and executive control were found for child and adult samples. Together, these findings suggest that the fundamental mechanisms concerning interpersonal forgiveness are applicable to children's forgiveness.

At the same time, it should be noted that some findings may change depending on children's age, and the model may be a useful tool to illustrate such changes. According to a functional perspective on forgiveness, children's tendency to forgive should be associated with well-being (Chapter 2), executive control (Chapter 3), and popularity (Chapter 4), particularly strongly in times of conflict with a *valuable* other. What type of relationship is valuable, or which offender is valuable, depends on the developmental stage of the child. In late childhood, peer relationships become more important as children start to untie their parental bonds (Berndt, 2004), whereas in early childhood children rely relatively more on their parents. Thus, the different levels of analysis may be more or less associated with children's forgiveness across the lifespan. Future research using cross-sectional studies in different developmental stages as well as longitudinal studies are needed to examine the developmental trajectory of forgiveness.

Additional considerations: the dyad, sex differences, and the way it is measured

Although the model may be a useful framework to guide future studies examining the determinants of forgiveness among children, there are several theoretical considerations that do not directly follow from the model. Below I briefly address these additional implications; the dyadic relationship in which the offense took place, sex differences, and the way forgiveness is measured.

The dyad. The studies presented in this dissertation examined children's forgiveness tendencies in an interpersonal context, between two individuals, and the forgiving responses were measured from the perspective of the offended person. Important implications for future research are when and how the determinants at different levels of analysis from the side of the offender affect a victim's level of forgiveness. Moreover, other interesting questions when taking into account the relationship dyad are how conciliatory strategies by the offender (e.g., apologies, expressions of regret, or nonverbal expressions of distress or shame) may promote forgiveness, and finally, what forgiveness does to the offending child. Research involving both victims and offenders may be particularly useful for answering such questions.

Sex differences. In the present dissertation so far, I did not pay much attention to potential sex differences, whereas children's social and emotional development, and the traits and behaviors associated with it, may differ strongly for boys and girls (for a review, see Rose & Rudolph, 2006). For instance, it is well-known that girls tend be more empathic and relational than boys (e.g., Eisenberg & Lennon, 1983). Based on this, it stands to reason that girls may likewise exhibit a greater tendency to forgive. However, the extant literature on the gender-forgiveness relationship is not without controversy. A meta-analysis by Miller, Worthington, and McDaniel (2008) revealed that women are somewhat more forgiving than men, whereas a more recent meta-analysis yielded non-significant effects for gender (Fehr et al., 2010).

Most importantly, in none of our studies sex differences on children's forgiveness tendencies were found (see also Flanagan, Vanden Hoek, Ranter, & Reich, 2012; Peets, Hodges, & Salmivalli, 2013). However, the determinants at the different levels may impact forgiveness tendencies of boys and girls differently. A good example of this is the finding in Chapter 4 where popularity was unrelated to girls' forgiveness toward peers, but revealed strong associations with boys' forgiveness. Certain determinants at the level of the family context may also account for differences in the way boys and girls respond to interpersonal offenses. Specifically, whereas boys are often exposed to parenting practices that promote rough-and-tumble, physically aggressive behaviors, girls are exposed to parenting practices that promote caring and close interpersonal relationships (e.g., Carlo, Raffaelli,

Laible, & Meyer, 1999). Such different socialization practices may account for sex differences in children's forgiveness. Although sex differences did not receive much attention in this dissertation, it may play an important role in children's forgiveness tendencies. This is an interesting topic for further research.

Measurement. Given that this dissertation is one of the first attempts to systematically examine forgiveness among children, it is important to critically evaluate the validity of its measurements. In the studies of this dissertation, children were asked to think back to and describe a hurtful incident. Generally, and with a great variety in the type of descriptions, children were well able to recall and write about such an incident; on average, only 5% of the children who agreed to participate in the studies could not recall a hurtful incident (who these children are, and why they have difficulties recalling a hurtful incident is an interesting question for future studies).

After recalling the offenses, children's forgiveness tendencies were measured with self-report and behavioral measures. In general the patterns for both types of measures were consistent across the studies. This is important considering the notion that previous studies on forgiveness relied almost exclusively on hypothetical scenarios, and scholars merely hold the assumption that people's reports of forgiveness reflected their forgiveness behavior. The fact that we found some inconsistencies between children's self-reported and behavioral forgiveness indicates that there still may be underlying differences between self-reported and behavioral forgiveness, and future research is needed to further address this issue.

Another implication concerning the methodology employed in this dissertation deals with its correlational nature. Certainly, correlational studies are helpful to provide insight into the determinants associated with children's forgiveness tendencies. However, experimental studies that provide more insight into the causal processes leading to forgiveness are missing. Such experimental studies not only seem suitable for exploring the underlying motives and goals that make children more or less forgiving, they may also unravel some of the proposed feedback loops. Relatedly, a final point concerns the temporal nature of forgiveness, in that forgiveness is generally a process that unfolds over time (e.g., Bono et al., 2008; Paleari, Regalia, & Fincham, 2005), whereas in the studies of this dissertation forgiveness was measured at only one point in time. Ideally, future researchers should combine longitudinal field studies with experimental laboratory studies to examine forgiveness tendencies among children.

Practical Implications

Apart from the theoretical implications for examining forgiveness tendencies among children, I would like to close by outlining a few promising, practical implications

that emerge from the studies of this dissertation. Implications focus not only on how children's tendency to forgive may be facilitated, but also how existing interventions may in fact work *against* children's forgiveness.

Should we instruct children to forgive offending peers?

Often, parents and teachers are confronted with situations in which children are in conflict with each other, and one or more children feel hurt or upset. The child may be insulted by another peer, excluded, or perhaps even hit or kicked. The parent or teacher finds him or herself in the challenging position to try to solve the conflict, or at least take care that it does not escalate. What can the findings presented in this dissertation teach us about what a parent or teacher should do in such situations? Should children be instructed to forgive offending peers? And if so, when and why should this be the case?

In general, it would indeed be a good idea to teach children to try a little more forgiveness. In Chapter 2 of this dissertation it was shown that acting with forgiveness – at least among friends – is strongly associated with increased life satisfaction, self-esteem, and general life happiness. Consistent with this, Flanagan and colleagues demonstrated strong negative associations between forgiveness and children's social anxiety (Flanagan et al., 2012). Also, past research among adult relationships has linked forgiveness with mental health, physical health, and relational benefits (Karremans et al., 2003; Paleari et al., 2005; Witvliet, Ludwig, & Vander Laan, 2001). Thus, based on these findings, it seems that parents, teachers, and others involved in raising children, should teach their children to respond with forgiveness to peer provocations.

However, the aforementioned benefits of forgiveness are mostly demonstrated in close relationships; in which two individuals feel strongly committed to each other and have the intention to continue the relationship in the future (i.e., friendships, romantic relationship; e.g., Arriaga & Agnew, 2001). Yet, conflicts and disagreements may also arise in relationships that are less exclusive, for example between a victim and a bully. What should we instruct children in such situations? Should victimized children be instructed to forgive a bullying peer?

This is an important and relevant question considering the high prevalence of bullying in childhood (e.g., Swearer, Espelage, Vaillancourt, & Hymel, 2010). As children often have no choice but to live with the presence of bullying at their schools, it is important that they learn how to effectively deal with their offenses. In line with previous theorizing, I argue that forgiveness may be a promising strategy to cope with bullying (Egan & Todorov, 2009; Flanagan et al., 2012), and thus may ultimately also be beneficial in less exclusive relationships. Though speculative at this point, whereas the positive consequences of forgiving a close friend are

immediately visible (i.e., positive affect, relationship satisfaction), it may take a while as to when the positive consequences of forgiving a non-friend or a bully are observed. That is, over time forgiving a bully may contribute to children's positive adjustment by impacting the negative effects resulting from peer victimization, such as negative self-perceptions, social isolation, loneliness, and anxiety (Flanagan et al., 2012; Hawker & Boulton, 2000). Moreover, forgiveness may not only be a valuable asset for victimized children to deal with bullies' offenses, it may also serve to prevent future bullying. Specifically, Ahmed and Braithwaite (2006) demonstrated that bullies' simple feelings of being forgiven reduced future bullying. Thus, the process of forgiveness – which is surely not an easy one – has the potential to help children with experiences of hurt from their peers, and also to prevent future bullying. However, It should be noted that, at least to my knowledge, any empirical evidence on the association between forgiveness and bullying is lacking, and future research is thus clearly needed to tap into this important issue.

How can we increase children's forgiveness tendencies?

As suggested above, forgiveness may be a fruitful strategy for children to cope with the interpersonal offenses they are confronted with in their daily lives, and thus children should be instructed to forgive their offending peers. One potential problem is, however, that such instructions or advices may not reach children, and therefore not effectively increase children's forgiveness tendencies. Specifically, in Chapter 5 of this dissertation it was found that parental advices about how to respond to peer provocations were not, or only weakly, associated with children's actual forgiveness tendencies.

Although future research is needed to further examine when and how parents may impact their children's forgiveness, another possibility is to step away from such direct advices from parents or teachers instructing children to act with forgiveness. In particular, in Chapter 3, consistent evidence was found for the beneficial role of children's executive control capacities in their ability to forgive offending peers. An important question is whether children's executive control capacities can be trained, and if so, whether this results in improvements in the ability to forgive?

A large body of research has confirmed that executive functions indeed can be trained (e.g., Diamond, Barnett, Thomas, & Munro, 2007; Kray & Ferdinand, 2013), and diverse programs and activities have been reported to improve children's executive functions (Diamond, 2012; Diamond & Lee, 2011; Karbach & Unger, 2014). It is important to note that previous executive control interventions have focused exclusively on investigating improvements in academic and cognitive functioning. Thus, considering the link between individual differences in executive control and interpersonal forgiveness, an important but largely unanswered

empirical question is whether an executive control intervention can affect interpersonal processes. Future research may set up an executive control intervention, and examine whether improvements in executive control result in increases in children's levels of forgiveness.

Should we tell children they are (not) special?

The findings of this dissertation not only bring forth potential intervention studies to increase children's forgiveness tendencies, at the same time, some results ask for a more nuanced view on existing interventions. In particular, in Chapter 6, I considered the phenomenon that interventions at schools in Western society teach children that they are a special person. It was demonstrated that, in fact, such well-intended words sometimes paradoxically backfire by making the child less forgiving in response to offending peers. Hence, as a final practical implication arising from this dissertation I wish to highlight that it is an important task for researchers and policy makers to reconsider, and perhaps change, such intervention programs where children are constantly told that they are a special person. Based on previous research demonstrating positive effects of appeals to 'common humanity' on forgiveness (e.g., Greenaway, Louis, & Wohl, 2012), an alternative is to instruct children to focus on their similarities with other children.

More generally, in the wake of an offense children may be best instructed to take the perspective of the offending peer. Trying to understand why offenders have offended them may increase feelings of empathy for the offender, and more importantly, this helps to facilitate forgiveness (McCullough et al., 1997). Besides the instruction to take the perspective of the offender, children may also be instructed to think back to a moment in which they offended another peer themselves. Becoming aware of the notion that one is able to act in a similar manner makes it easier to have empathy for the offender, and it enhances the idea that children are in some way 'similar' to each other (Exline, Baumeister, Zell, Kraft, & Witvliet, 2008). Ultimately, this may help to reduce the perceived severity of the offender's negative behavior.

Concluding Remarks

Learning to effectively deal with the inevitable conflicts that arise in children's social relationships is a major developmental task. Being able to act in a forgiving manner in response to an offending peer may help children to move forward despite the offenses and conflicts that occur. The results of the studies reported in this dissertation reveal initial insight into the determinants and consequences associated with children's propensity to forgive. Apart from having provided an overview of studies that increase our understanding about when, why, and how children forgive an offending peer, I proposed a model that may serve as a basis for future exploration into this topic. It is my hope that this dissertation inspires scholars to further examine the study on forgiveness among children. Not only because many important and interesting questions remain to be addressed, but perhaps mostly because there is simply too much at stake to ignore the promise of forgiveness as a balm for some of our species' destructive propensities. In keeping with Desmond Tutu's saying "without forgiveness there is no future" (1998; p. xiii) - not for societies, not for romantic relationships, and perhaps especially not for our children that we hold so dear.

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Samenvatting

Stel je eens voor dat twee stekelvarkens een koude winternacht moeten overleven op Alaska. Ze hebben elkaars nabijheid nodig om warm te blijven en niet te sterven van de kou. Daarom kruipen de stekelvarkens steeds dichter tegen elkaar aan, tot ze elkaar prikken met hun stekels en hierdoor instinctief meer afstand nemen. Vervolgens wint het verlangen naar warmte het van de angst voor de stekels en kruipen ze weer dichter naar elkaar toe, met als gevolg dat ze elkaar opnieuw pijn doen (Fincham, 2000). Het lot van deze stekelvarkens symboliseert de paradox van vriendschappen in de kindertijd. Kinderen hebben andere kinderen nodig om gelukkig en gezond te zijn. Vriendschappen in de kindertijd kunnen dan ook een bron van vreugde, bescherming, vertrouwen, en geluk zijn. De kwaliteit en kwantiteit van deze vriendschappen hebben een sterke impact op hoe een kind zich voelt, hoe het zich gedraagt in de klas, en zelfs op zijn of haar gezondheid. Tegelijkertijd kunnen deze vriendschappen ook een bron van pijn en ellende zijn. Het is haast onvermijdelijk dat een kind vroeg of laat door zijn of haar vriendjes gekwetst zal worden. Kinderen kunnen elkaar uitlachen, over elkaar roddelen, geheimen doorvertellen, of elkaar pesten. Deze paradox illustreert de twee fundamentele aannames waarop dit proefschrift is gebaseerd: kinderen hebben andere kinderen nodig om gelukkig en gezond te zijn en tegelijkertijd is het onontkoombaar dat kinderen elkaar kwetsen. Eén van de grootste uitdagingen in het interpersoonlijke leven van kinderen is dus hoe ze hun vriendschappen intact houden ondanks de conflicten die zich zullen voordoen.

De belangrijkste boodschap van dit proefschrift is dat het vermogen om te vergeven een manier is om vriendschappen, ondanks alle teleurstellingen, te kunnen behouden. Alhoewel vergeving veel aandacht heeft gekregen binnen de sociale en klinische psychologie, is het een onderbelicht onderwerp binnen de ontwikkelingspsychologie. Dit is een gemiste kans, omdat kinderen door te vergeven in staat zijn om onderlinge relaties – die zo belangrijk zijn voor hun sociale en emotionele ontwikkeling (Berndt, 2002; Berndt & Ladd, 1989) – te herstellen. Wanneer kinderen altijd in wraakgevoelens en boosheid zouden blijven hangen in reactie op de onvermijdelijke momenten dat ze zich gekwetst of boos voelen, zou de gemiddelde vriendschap geen lang leven beschoren zijn. Het lijkt zelfs bijna onmogelijk dat vriendschappen in de kindertijd voor lange tijd bestaan als een kind niet in staat is om vergevingsgezind te zijn.

De consequenties van vergeving bij kinderen

Aangezien onderzoek naar vergeving bij kinderen relatief schaars is, ben ik in dit proefschrift begonnen door te kijken naar de consequenties van vergeving bij kinderen. In *Hoofdstuk 2* heb ik me gericht op de eenvoudige maar belangrijke vraag of vergeving gerelateerd is aan het psychologisch welbevinden van kinderen: met andere woorden, zijn kinderen die vergeven gelukkiger, meer tevreden met hun leven

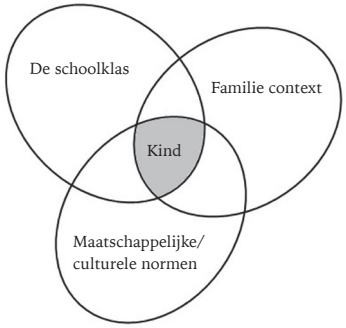
en meer tevreden met zichzelf? Op basis van de literatuur over vergeving in relaties tussen volwassenen was de verwachting dat het verband tussen vergeving en psychologisch welbevinden zou afhangen van de aard van de relatie waarin de vergeving plaatsvindt. De resultaten lieten inderdaad zien dat vergeving gepaard gaat met meer psychologisch welbevinden, maar alleen wanneer de dader iemand betreft met wie het kind in principe graag een relatie wil voortzetten - een vriendje of vriendinnetje.

De determinanten van vergeving bij kinderen

In de daaropvolgende hoofdstukken 3 tot en met 6 heb ik de mogelijke determinanten van vergeving bij kinderen onderzocht. Wat voorspelt nu of een kind vergevingsgezind dan wel wraakzuchtig of agressief zal reageren als het door een klasgenoot wordt gekwetst? Met behulp van het model dat hierna afgebeeld is, heb ik specifieke onderzoeksvragen opgesteld op verschillende niveaus van analyse (Figuur 1). Zo heb ik in *Hoofdstuk 3* gekeken naar de invloed van karakteristieke eigenschappen van het kind zelf. Voortbouwend op eerder onderzoek (zie bijvoorbeeld Pronk, Karremans, Overbeek, Vermulst, & Wigboldus, 2010), heb ik onderzocht of de mate van impulscontrole samenhangt met vergeving. In vier studies vond ik inderdaad dat hoe beter een kind zijn of haar impulsen kan onderdrukken, hoe groter de kans is dat het kind vergevingsgezind zal reageren op wangedrag van zijn of haar klasgenoten. Belangrijk is echter dat dit effect alleen optrad in vriendschapsrelaties. Als het gevoel van vriendschap ontbreekt kan een kind nog zoveel impulscontrole hebben, maar zal er toch geen vergeving optreden. Deze resultaten suggereren dus dat voor het vergeven van een klasgenoot zowel een hechte vriendschap als een zekere mate van impulscontrole nodig is.

Aangezien kinderen tijdens een reguliere schooldag vrijwel al hun tijd doorbrengen in een groep met andere kinderen is het zeer waarschijnlijk dat, naast karakteristieke eigenschappen van het kind zelf en onderlinge vriendschapsrelaties, de mate van vergeving ook afhangt van de sociale positie van het kind in de klas. In *Hoofdstuk 4* heb ik gekeken naar de vraag of de sociale status van een kind in de klas samenhangt met hoe hij of zij reageert op kwetsend gedrag van klasgenoten. In het bijzonder heb ik de rol van populariteit onderzocht. De resultaten van twee studies lieten zien dat hoe populairder een kind, hoe vergevingsgezinder het kind is. Twee factoren speelden hierbij een belangrijke rol: 1) geslacht van het kind (is het een jongen of een meisje?) en 2) het type relatie met de ‘dader’ (is degene die het kind gekwetst heeft een vriendje of niet?). Voor meisjes was er geen verband tussen populariteit en vergeving. Voor jongens wel: voor minder populaire jongens lijkt de mate van vriendschap bepalend te zijn om de dader wel of niet te vergeven; er vindt meer vergeving plaats bij vriendjes dan bij niet-vriendjes. Voor populaire jongens daarentegen lijkt vriendschap een minder belangrijke rol te spelen; zij verge-

ven zowel vriendjes als niet-vriendjes. Een interessante vervolgvraag is of dit één van de redenen is die populaire jongens populair maakt: ze zijn vergevingsgezinder.



Figuur 1. De determinanten van vergeving bij kinderen op verschillende niveaus van analyse.

Zoals te zien in Figuur 1, vindt een volgende mogelijke voorspeller voor het vergevingsgezinde gedrag van een kind haar oorsprong in de familiecontext. In *Hoofdstuk 5* heb ik gekeken naar de rol van de ouders op de mate van vergeving van kinderen ten aanzien van hun klasgenoten. Eerdere bevindingen suggereren dat ouders een essentiële rol spelen bij de ontwikkeling van pro-sociaal gedrag van hun kinderen (Ackerman et al., 2013). Op basis van deze eerdere bevindingen werd verondersteld dat ouders mogelijk ook invloed hebben op de mate van vergeving van hun kinderen. Is het advies dat ouders geven aan hun kind over hoe ze moeten reageren op kwetsend gedrag van anderen gerelateerd aan de vergevingsgezindheid van hun kinderen? En speelt de mate van vergeving van de ouders onderling een rol in het voorspellen van vergevingsgedrag bij hun kinderen? In twee studies is er geen overtuigend bewijs gevonden dat ouders van invloed zijn op de mate van vergeving van kinderen. Of een kind in meer of mindere mate een klasgenoot vergeeft lijkt wederom het meest af te hangen van de gevoelens van vriendschap met de dader: hoe sterker bevriend, hoe meer vergeving – onafhankelijk van wat ouders hun kinderen adviseren, of wat ouders zelf doen.

Tot slot zouden maatschappelijke of culture normen wellicht nog een rol kunnen spelen in vergevingsgezindheid van kinderen. Deze kwestie heb ik onderzocht in *Hoofdstuk 6*. Vandaag de dag krijgen zowel kinderen als volwassenen vaak te horen dat ze bijzondere en vooral speciale individuen zijn. Zo heeft een veel verkochte kinderwagen in Nederland de tekst '*I am very special*' in de rugleuning genaaid, en bestaat er zelfs een iPhone-app die mensen er wekelijks aan helpt herinneren hoe 'speciaal' ze zijn. Dit zijn slechts enkele voorbeelden die laten zien hoezeer de zelfwaarderingscultuur verankerd is in de Westerse samenleving (zie Twenge &

Campbell, 2009). De onderliggende aanname is dat het gevoel speciaal te zijn mensen helpt om zich verantwoordelijk te gedragen. Maar is dit ook echt het geval? In het laatste hoofdstuk van het proefschrift heb ik onderzocht wat de interpersoonlijke consequenties zijn van deze maatschappelijke focus op het 'speciaal zijn'. Specifiek heb ik in een lab-onderzoek bij studenten, en een interventie bij kinderen, deelnemers laten focussen op wat hen als mens zo speciaal maakt. Vervolgens heb ik de mate van vergeving gemeten. De resultaten van deze twee studies tonen aan dat wanneer kinderen of studenten die net nagedacht hadden over hoe speciaal ze zijn en vervolgens geen speciale behandeling kregen (ze werden beledigd of gekwetst), minder vergeving lieten zien. Oftewel, teveel nadruk op hoe speciaal iemand is lijkt het proces van vergeving te ondermijnen, en kan zodoende mogelijk zelfs interpersoonlijke relaties aantasten.

Wat kunnen we hiermee?

Een vraag die wellicht opkomt op basis van de bevindingen van dit proefschrift is of kinderen aangeleerd moeten worden om hun klasgenoten te vergeven. Samen met tal van eerdere onderzoeken die de positieve effecten van vergeving aantonen (zie bijvoorbeeld Flanagan, Vanden Hoek, Ranter, & Reich, 2012; Karremans, Van Lange, Ouwerkerk, & Kluwer, 2003), laat Hoofdstuk 2 zien dat – in ieder geval als een kind gekwetst wordt door een vriendje of vriendinnetje – het slim is om de ander te vergeven. Er zijn echter twee belangrijke vervolgvragen die extra aandacht verdienen: moeten kinderen iedereen altijd vergeven – ook anderen waar ze minder goed bevriend mee zijn, zoals een pester? En daarnaast, *hoe* kunnen we kinderen dit leren?

Of een kind iedereen altijd moet vergeven voor zijn of haar wangedrag is vooral een relevante vraag gezien de huidige hoge prevalentie van pesten (Vloeker, Espelage, Vaillancourt, & Hymel, 2010). Op school hebben kinderen vaak geen andere keuze dan te leven met de aanwezigheid van pesters en agressieve klasgenoten. Het is dus van belang kinderen te leren effectief om te gaan met deze situaties. In overeenstemming met enkele eerdere redeneringen, veronderstel ik dat vergeving een veelbelovende strategie is om met pesten om te gaan (Egan & Todorov, 2009; Flanagan et al., 2012). Alhoewel de positieve gevolgen van het vergeven van een goede vriend direct zichtbaar zijn (meer tevredenheid in de vriendschap, positieve stemming), kan het even duren voordat deze tot uiting komen bij het vergeven van een minder bevriende klasgenoot of een pester. Het is echter waarschijnlijk dat vergeven van een pester na verloop van tijd de negatieve gevolgen van gepest worden verminderen (zoals eenzaamheid, negatief zelfbeeld en sociale angst; Flanagan et al., 2012; Hawker & Boulton, 2000). Daarbij komt dat wanneer een pester het idee heeft dat zijn of haar pestgedrag vergeven wordt door het slachtoffer, dit de kans op toekomstig pestgedrag sterk vermindert (Ahmed & Braithwaite,

2006). Kortom, hoewel het zeker niet makkelijk is, lijkt vergeving toch de potentie te hebben om kinderen te helpen om te gaan met pijnlijke en kwetsende situaties met klasgenoten – zelfs als deze klasgenoten notoire pesters zijn. Gezien de ernst en de gevolgen van pesten in de kindertijd is vervolgonderzoek hard nodig om deze belangrijke kwestie nader te onderzoeken.

Nu het erop lijkt dat vergeving mogelijk een vruchtbare strategie is voor kinderen om te leren omgaan met de interpersoonlijke conflicten die zich in de kindertijd voordoen, is een tweede vraag hoe kinderen dit bijgebracht kan worden. In Hoofdstuk 5 van dit proefschrift is aangetoond dat ouderlijke adviezen over hoe te reageren op beledigingen van klasgenoten niet, of slechts zwak, samenhingen met de werkelijke mate van vergeving van hun kinderen. Met andere woorden, directe instructies geven aan kinderen lijkt geen efficiënte manier te zijn om kinderen te leren vergeven. In Hoofdstuk 3 is overtuigend bewijs gevonden voor de rol van impulscontrole bij het vergeven van kinderen. Kan impulscontrole getraind worden, en leidt dit vervolgens tot meer vergeving?

Verscheidene onderzoeken hebben laten zien dat impulscontrole inderdaad getraind kan worden (Diamond, Barnett, Thomas, & Munro, 2007; Kray & Ferdinand, 2013). Deze onderzoeken hebben zich echter voornamelijk gericht op het verbeteren van leerprestaties of ander cognitief functioneren. Een belangrijke, maar dus grotendeels onbeantwoorde, vraag is of een impulscontrole-interventie ook interpersoonlijke processen zoals vergeving kan beïnvloeden. Toekomstig onderzoek zal dit moeten uitwijzen.

Conclusie

Samengevat laten de bevindingen van dit proefschrift zien dat een breed scala aan factoren op verschillende niveaus invloed heeft op de mate van vergeving bij kinderen: op individueel niveau (impulscontrole), interpersoonlijk niveau (gevoelens van vriendschap), inter-groep niveau (populariteit), en maatschappelijk niveau ('speciaal voelen'). Deze verschillende niveaus van analyse, en het feit dat onderzoek naar vergeving bij kinderen letterlijk nog in de kinderschoenen staat, bieden veel mogelijkheden voor toekomstig onderzoek. Dit is hard nodig: niet alleen omdat er nog belangrijke vragen onbeantwoord zijn, maar vooral omdat er simpelweg teveel op het spel staat. Vergeving blijkt keer op keer een uiterst succesvolle en efficiënte strategie om constructief om te gaan met conflicten en onenigheden. Het is misschien wel de enige manier om hechte relaties, die zo belangrijk zijn voor onze gezondheid en welzijn, te beschermen en te behouden. Denk nog eens terug aan de stekelvarkens: als zij niet in staat waren om vergevingsgezind te zijn en elkaars nabijheid weer op te zoeken, hadden ze de koude Alaska-nacht waarschijnlijk niet overleefd.

Dankwoord

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suf') en in mijn derde PhD-jaar was ik er nog van overtuigd dat ik eindelijk iets 'nuttigs' zou gaan doen – iets betekenen voor de échte wereld. Toch voel ik me hier nog steeds als een vis in het water. Wat het ook moge zijn, één ding is zeker; al die jaren ben ik omringd geweest door stuk voor stuk inspirerende en mooie mensen. Deze groep academici zou ik voor geen goud uit het oog willen verliezen.

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Vanuit mijn vertrouwde leventje in Utrecht maakte ik de stap naar het onbekende Nijmegen. Hier werd ik vrijwel meteen omringd door warme en open mensen die mij als persoon enorm verrijkt hebben. Ik ben al mijn collega's uit Nijmegen ongelooflijk dankbaar voor hun inspiratie en betrokkenheid. Jullie hebben ervoor gezorgd dat de 9e een fantastische plek is om te promoveren: de labgroepen en reisverhalen van Ap, BBL's met kritische vragen van Ad, koffiepauzes met mooie (en vaak pijnlijke) verhalen van Cor, BBQ's in de tuin van Rob, het traplopen met Harm & Martijn, en het spuien met Matthijs – wat denk ik hier met veel plezier aan terug. Ook alle mede-AiO's van toen en nu, heel erg bedankt!

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voor je positieve vibe en slechte grappen. Ik hoop dat Johan het goedvindt dat we nu eindelijk roomies zijn. Ron, zelfs na drie uur slaap vraag je nog hoe 't met me gaat; wat ben ik blij dat we weer collega's zijn. Lieke, het was een genot om tot het einde van je lieve persoonlijkheid te genieten. Annemarie, samen spinnen of Mardi Gras in New Orleans; het was gezellig samen. Gijs, lekker nuchter waardeer ik wel. Bedankt voor de fijne gesprekken. Aukje, (voor mij) de eerste mama in de wetenschap – mega stoer. Professor Daniël, één van de weinige hoogleraren die zijn kamerdeur heeft openstaan: ik heb genoten van de labgroepen en de biertjes in Lissabon. De 9e verdieping is niets zonder de trouwe dames van het secretariaat: Marjo, Madelon, en Marijke, ik wil jullie enorm bedanken voor jullie hulp en gezelligheid als buurvrouwen!

Ik had 't geluk dat ik op twee afdelingen werkte. Peer group collega's, in mijn laatste jaar leerde ik jullie echt goed kennen. Bedankt voor de leuke schrijfweek en jullie onmisbare input tot het einde aan toe. Tessa, slechts één mailtje en vijf seconden verwijderd zijn van jouw tips was zeer geruststellend. Willem, bedankt voor je belangstelling en geweldige humor. Tirza, dat waren toch twee geslaagde congressen? Ik heb genoten van de samenwerking!

In my third year I had the privilege to visit the Social Psychology department at Cardiff University. Greg, thanks a lot for hosting me. I am looking forward to continue our collaboration in the future. Sindhu, grandma gossip anytime. I remember us walking, walking, walking in the rain, rain, rain. Marlon & Job, bedankt voor jullie enorme gastvrijheid. Colin, thanks for your incredibly sharp mind.

Met beide handen greep ik elke mogelijkheid aan om mee te gaan op congres, met de beste bestemmingen en de mooiste mensen bovendien. Thijs & Tom, ons magical moment in San Francisco, scheuren door de desert van Anza Borrego en bloedzuivere karaoke-optredens; wat heb ik van jullie genoten. Happy life Florien, waar te beginnen? Icecubes in het koude Delaware en de zonnige zomibo in Austin; je bent een enorme aanwinst in mijn leven. Hannah, samen naar het zwembadcongres in Estoril. Ook bedankt voor het inpakken van mijn koffer. Erik, het kan altijd nog iets gekker – lekker zo in het dankwoord. Alex & Hans, my favorite Germans: keep in touch!

Naast de congressen waren er nog vele momenten om met andere sociaal psychologen in commissies te zitten of een feestje te vieren: ASPO-dissertatiecommissie 2012 en 2013, ASPO-Blits 2014, wat heb ik veel geleerd. Relationship-science PhD's - Mariko & Asuman – keep up the good work. EASP-summerschool, een onvergetelijke tijd. In het bijzonder de pineapple groep Anna, Florien, Lotte, Nic & Tim. Op het juiste moment gaven jullie me een flinke boost. Hou vol, we gaan de wereld veranderen! Annelie, Jens, & João: perfect team, stay juicy!

Het doet me goed weer terug te zijn op het oude nest aan de Heidelberglaan. Ik wil dan ook graag mijn nieuwe (waarvan stiekem veel oude) collega's in Utrecht bedanken voor de warme ontvangst. Op een mooie toekomst samen!

En dan zijn er nog een tal van mensen buiten de wetenschap die je met beide benen op de grond houden. Miriam, mattie, bedankt dat jij mijn lege tank altijd weet op te vullen met nieuwe energie. Met de duiven mee kunnen we samen de hele wereld aan. Teske, ik meen 't: bedankt voor je stop-met-denken memo's. Oui oui, gaan we gauw weer naar ons Paris? Sanne, samen in het Cultuurcafé of zen in Den Haag. Wat heb jij met me meegeleefd. Judith, bedankt voor de logeerpartijtjes toen ik liever in Amsterdam dan in Nijmegen zat. Ook Caroline, Dorien, Hanneke, Leonie, Lianne en Marieke: jullie enthousiaste en bemoedigende woorden zijn een groot 'kort applaus' waard!

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Tot slot, mijn familie. Lieve Maartje, grote kleine zus, mijn dankbaarheid gaat veel verder dan een paar woorden op papier. Al die weekenden in de kelder, je attente kaartjes, en goede zorgen. Wat is het leven fijn met jou als zus! Thomas, getik op een gitaar en gedeelde Ibra-liefde: als een broer sta je altijd voor me klaar. Ik vind je de mooiste Heino-er die ik ken!

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Curriculum Vitae

Reine van der Wal was born on the 24th of January 1987 in Zwolle, the Netherlands, and grew up in the meadows among the goats and horses of Klein Aver Heyno. Although by that time she thought gymnastics and playing the piano were significantly more important in life than anything else, she secretly developed a keen interest in human behavior. After finishing secondary education at the Carolus Clusius College in Zwolle, she moved to Utrecht to study Psychology. In 2007 she finished her Bachelors in Clinical and Health Psychology, after which she spent a semester in Canada to study Sport Psychology. After another intermezzo at the University of California at Berkeley, she obtained her Master's degree (cum laude) in Social and Health Psychology in 2010 at Utrecht University. In December 2010, Reine started her PhD project on 'Forgiveness among Children' at the Behavioural Science Institute (BSI) at the Radboud University Nijmegen, supervised by Johan Karremans and Toon Cillessen. During her PhD, she visited Cardiff University to work with Greg Maio. As of January 2015, Reine is working as an Assistant Professor at the department of Social and Organizational Psychology of Utrecht University.